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HARVARD UNIVERSITY

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A PRELIMINARY REPORT OF THE EXPLORATIONS BY THE MUSEUM,

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Comatan, read Camotan (see Index)
Chemilicon, read Chamelicon (see Index)
Yohoa, read Yojoa (see Index)
Page 184, 4th line from bottom of page, for 18, read 8
Page 184, 2d line from bottom of page, second word, for third, read fourth

MEMOIRS

OF THE

PEABODY MUSEUM OF AMERICAN ARCHAEOLOGY AND ETHNOLOGY, HARVARD UNIVERSITY.

VOL. I.—No. 1.

PREHISTORIC RUINS OF COPAN, HONDURAS.

A PRELIMINARY REPORT OF THE EXPLORATIONS BY THE MUSEUM, 1891 — 1895.

CAMBRIDGE, MASS.:

PUBLISHED BY THE MUSEUM.

1896.

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University Press:
John Wilson and Son, Cambridge, U. S. A.

EDITORIAL NOTE.

WITH this Memoir is begun a series of publications of quarto size, in order to provide for larger plates than can be given in the octavo "Archæological and Ethnological Papers" of the Peabody Museum.

This preliminary report of the explorations at the Ruins of Copan is intended to give only a general description of the ruins and a summary of the work of the several Museum expeditions to Honduras from 1891 to 1895. It will be followed by special papers relating to discoveries made during the explorations.

The following pages have been compiled from the field notes of Marshall H. Saville, John G. Owens, and George Byron Gordon, who at different times have carried on the explorations under the direction of the Museum.

The compilation of the report was intrusted to Mr. Gordon, who, since the lamented death of Mr. Owens, which occurred at Copan on February 21, 1893, has been in charge of the field work at the ruins.

Previous to the explorations by the Museum, Alfred P. Maudslay, of London, had carried on extensive researches among the ruins of this remarkable prehistoric city, and had begun the publication of his work on the Archaeology of Central America. His elaborate and important memoir has been continued; and free use has been made of it in the preparation of this report. Mr. Maudslay has most heartily coöperated with the Museum in the continuation of the work at Copan, and during the year 1893–94 he was the representative of the Museum at the Ruins. As Mr. Maudslay had given names, with reference by letters and figures, to the various portions of the Ruins and to prominent sculptures, the same designations are given in this report and on the accompanying plan. Additional features have been indicated by continuing in sequence the letters and figures, thus avoiding duplication and confusion.

The accompanying plan of the principal part of the Ruins is from a survey by Mr. Gordon, who made the drawings for several of the illustrations in the text. Other illustrations are from drawings by C. C. Willoughby, who has also assisted in the preparation of the report.

This important research at the Ruins of Copan has been made possible by the generous contributions of the patrons of science whose names are given in the following list.

F. W. PUTNAM,
Curator of the Peabody Museum.

CAMBRIDGE, MASS.,
June 1, 1896.

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THE AMERICAN MUSEUM OF NATURAL HISTORY OF NEW YORK

COÖPERATED IN THE EXPEDITION OF 1894–95.

EXPLORATION OF COPAN.

GENERAL DESCRIPTION OF THE SITE.

WITHIN the territory of Honduras, about twelve miles from the frontier of Guatemala, in a beautiful valley watered by a rapid, winding stream, and shut in by mountains that rise in ridges to a height of three thousand feet, are situated the Ruins of Copan (lat. 14° 51′ 30″). The only roads leading to the ruins are rough mule-tracks over the mountains; the shortest route from the Atlantic coast is that from Yzabal, crossing the mountain ranges of Mico and Espiritu Santo, between which the river Motagua flows in a circuitous course to the sea.

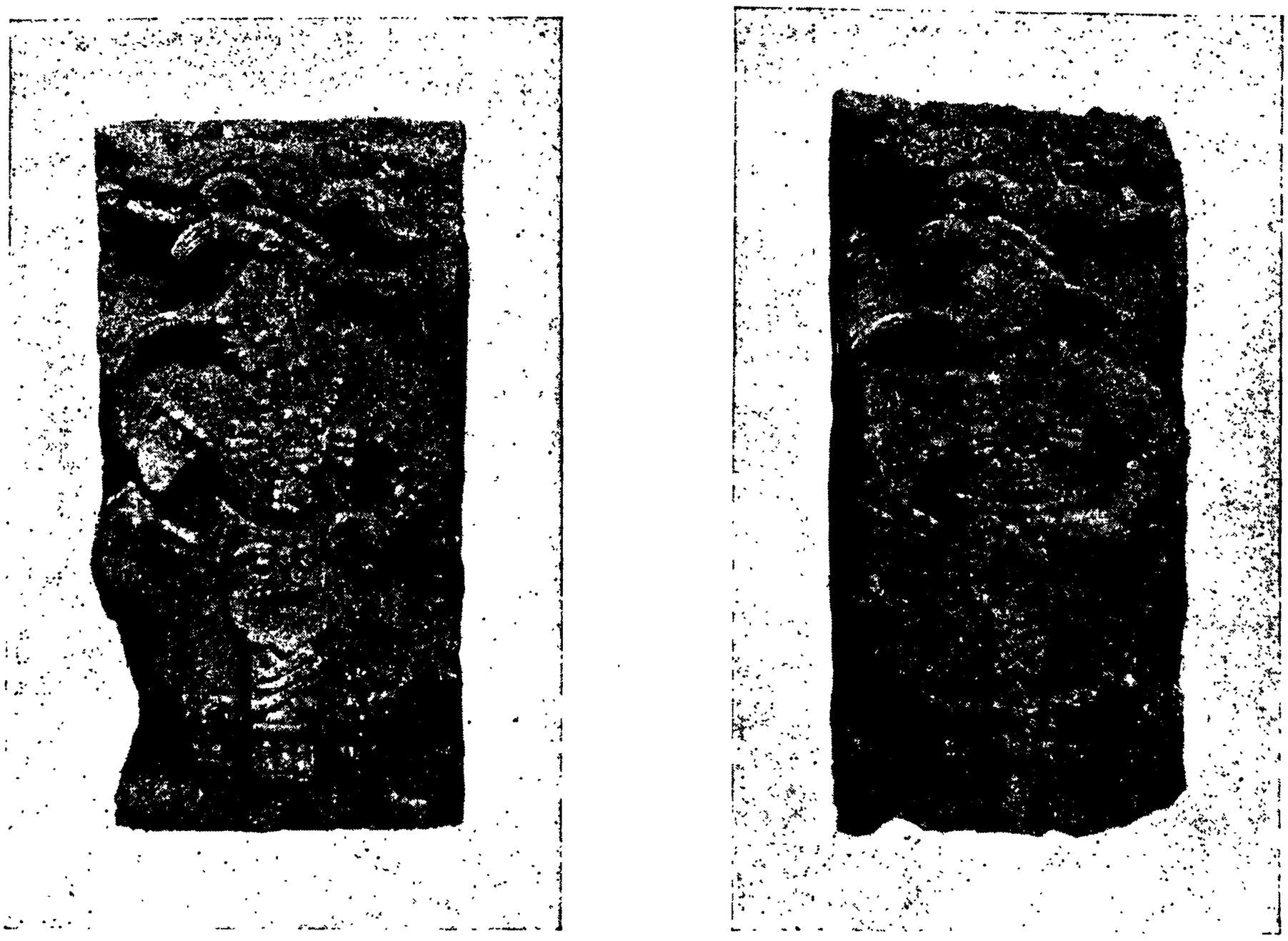
After leaving Comotan, the last town within the territory of Guatemala to which the account given by Stephens in 1839 applies to-day, the road crosses the river Copan on its way to join the Motagua and ascends a mountain ridge, from whose summit glimpses can be caught of the stream, winding in and out between precipitous banks, tumbling over ledges and leaping among the rocks, a perfect cataract, not navigable even to the lightest canoe. The road reaches a height of 2,800 feet, and then descends abruptly into the Copan valley, which has an elevation of 2,000 feet above the sea. The upper slopes of the surrounding mountains are covered with open pine forests, but the foot-hills and the plain of the valley are clothed in an impenetrable thicket of low trees and brush.

Stephens states that at the time of his visit, in 1839, the whole valley was buried in a heavy forest. Monkeys stared at him from the branches of the trees, and passed to and fro high above his head. To-day there are no monkeys in the vicinity, and the deep, gloomy forest where they like to roam is wanting.

According to information obtained from the oldest inhabitants of the modern village of Copan, the forest of gigantic trees that clothed the place in Stephens' day was cut down about thirty years ago by a colony from Guatemala who came to plant corn and tobacco in the fertile lands of the valley. They left the trees that grew on the higher structures of the ruins, making a picturesque grove, a remnant of which still remains, a few cedars and ceibas of gigantic proportions, clustered about the ruins of the temples,

shrouding them in a sombre shade, and sending their huge roots into the crevices and unexplored chambers and vaults and galleries of the vast edifices.

The valley in which the ruins are situated has the form of a level plain, about one and a half miles wide and seven or eight miles long, enclosed on all sides by the mountains, which rise in gentle slopes in front, and farther back in more precipitous ridges terminating in rounded peaks and level table-tops. The river flows in a southwesterly direction. It emerges by a narrow passage from the mountains, flows with many windings through the plain, and disappears through a gorge to the west. The principal ruins are situated on the right bank near the centre of the valley, where the river runs close to the eastern foot-hills. Taking an abrupt bend to the west, the river flows directly against the ruins, by which its course is again turned abruptly to the south. As would be expected in a level valley like that of Copan, the river is constantly changing the position of its bed. For a long time it has been making encroachments on the ruins, and the entire eastern side of the great pile known as the Main Structure has been carried away by it, leaving the interior exposed in the form of a cliff one hundred and twenty feet high. The whole of this elevation is artificial; pieces of pottery and obsidian knives can be picked out of it even at the water's edge. The river is subject to annual freshets, during which an immense body of water is thrown with great force directly against the opposing cliff, from whose face a fresh portion falls in each succeeding year. So swift is the current that little of this fallen material is left when the water subsides.



SCULPTURES FROM TERRACE EAST OF THE GREAT PLAZA. (See page 24.)

HISTORICAL SKETCH.

COPAN has been visited in former times by several travellers and explorers who have given more or less accurate information respecting what they saw.

In 1530 Hernando de Chaves made an expedition into the neighborhood, from the capital city of Guatemala, and conquered an Indian stronghold called Copan; but neither he nor any of his associates on the expedition left any account, so far as is known, of the people or towns.

The later historians of the country have made an attempt to identify the place called Copan, conquered by Chaves, with the ruins which since their first mention have been known by that name; but there is nothing within the range of our present knowledge of the facts to justify such a conclusion. There are, on the contrary, historical evidences which seem to prove almost beyond a doubt that the place conquered by Chaves was very inferior to, and more modern than, the ruined city called Copan, to-day, concerning which history is silent. It is now the general opinion of students that this city of antiquity was a complete ruin long before the arrival of the Spaniards; all tradition concerning it was lost, and its name forgotten.

In 1576 Diego Garcia de Palacio, Justice of the Royal Audiencia of Guatemala, travelling in accordance with his duties, passed through the ruins, and in a letter to King Philip II. of Spain gives a description of what he observed. This document, which is preserved in the Muños collection of Spanish manuscripts in the British Museum, is of great value,—containing as it does the only mention made by the early Spanish writers concerning these ruins. Palacio describes what he saw as "ruins and vestiges of a great population and of superb edifices, of such skill and splendor that it appears that they could never have been built by the natives of that province."* After a description that corresponds very well so far as it goes with what is seen to-day, he goes on to say: "I endeavoured with all possible care to ascertain from the Indians, through the traditions derived from the ancients, what people lived here, or what they knew or had heard from their ancestors concerning them. But they had no books relating to their antiquities, nor do I believe that in all this

* A letter from the Licenciado Diego Garcia de Palacio to Philip II. of Spain; dated Guatemala, 8th March, 1576. Maudslay's translation.

district there is more than one, which I possess. They say that in ancient times there came from Yucatan a great lord who built these edifices, but that at the end of some years he returned to his native country, leaving them entirely deserted." *

Here is an account written only forty-six years after the expedition of Chaves, and yet, from the words used, it is plain that the structures were in an advanced state of ruin. Palacio is known to have been an intelligent and faithful inquirer after historical facts, and yet the only story he was able to get from the natives was of the vaguest possible character, and sounds more like their own invention than a real tradition.

If the place had really been destroyed by Chaves, there must have been eyewitnesses of the event still living at the time of Palacio's visit. It is conceivable that the Indians might have invented the story they gave him in order to avoid telling the truth, but it is scarcely possible that Palacio could have been so deceived.

From the time of Palacio's visit until the year 1835, a lapse of more than two centuries and a half, the ruins remained in total darkness, buried in the depths of a tropical forest, and unknown except to the indifferent natives, — so that the historian Robertson, writing in 1777, quotes the statement made to him that in all New Spain there is not "any monument or vestige of any building more ancient than the Conquest." † The report of Colonel Juan Galindo, who was commissioned by the Government of Guatemala in 1834 to examine the ruins, has never been published in full; but a letter written by him to the editor of the "Literary Gazette" of London, is printed in that Journal for 1835, and a similar letter is printed in the "Transactions of the American Antiquarian Society," Vol. II. These letters, although they make the ruins known for the first time to the civilized world, add little to our knowledge of Copan.‡

It remained for Mr. John L. Stephens — who in 1839 was sent on a special commission to Central America by the President of the United States, and who, in his "chase after a government," improved his time by exploring

* See Appendix for Squier's reprint and translation of Palacio's letter.

† Robertson, History of America, vol. II., note lviii to p. 298. In the same note, however, he refers to information received of a temple near Cuernavaca, composed of large stones fitted nicely to each other.

‡ There is an account of the Ruins of Copan in a manuscript history of Guatemala written in the seventeenth century, and preserved in the City of Guatemala. It is entitled "Historia de Guatemala: Recordacion Florida, escrita el siglo xvii," by Francisco Antonio de Fuentes y Guzman. The account of Copan here given is quoted by Juarros in his history of Guatemala (Compendio de la Historia de la Ciudad de Guatemala, por El Señor Don Domingo Juarros. Guatemala, 1808); but from its erroneous and absurd character, and the fact that it is directly contradicted by what has been described by other writers and by what is seen to-day, it seems evident that it could never have been written from personal knowledge. The writings of Fuentes must be regarded as of little value.

the antiquities of the country, — to awaken the general interest of the scientific world concerning the ruins.

Stephens was so fortunate as to have with him an English artist, Fred. Catherwood, whose pencil drawings, executed with most admirable fidelity, add greatly to the archaeological value of Stephens' work.* Owing to the dense tropical forest that hid the ruins in his day, the plan as well as the description by Stephens is of necessity incomplete, and in many particulars erroneous; he fell into an error, that would seem to have been made by Palacio nearly three hundred years before, in mistaking fallen buildings for ruined city walls, and in denying the existence of interior chambers and stone-roofed structures.

The real character of the principal structures was first understood by Mr. Alfred P. Maudslay of England, who prepared the first map of the ruins having any claims to exactness.

In 1885 Maudslay visited the ruins and made the first attempt at an extensive and careful exploration. Having brought tools for excavating, and materials for taking impressions of the sculptured monuments, he made a number of excavations among the ruins, and took with him to England a set of moulds of the principal monuments from which casts have been made and exhibited in the South Kensington Museum and in the Archaeological Museum at Cambridge.

The result of Maudslay's work, so far as relates to Copan, has now been given to the world in a form which makes it at this date the most valuable contribution to the archaeology of Central America.†

In 1889 Mr. E. W. Perry obtained from the Government of Honduras a concession with the object of founding a National Museum of Antiquities at Copan, to be under the management of a Society of Antiquarians, of which Mr. Perry was to be permanent president. The scheme involved the exploration of the ruins of Honduras and the disposition of the collections thus obtained in a Museum at Copan. The plan was never realized; and in 1891 Mr. Charles P. Bowditch, of Boston, obtained from Mr. Perry all the rights pertaining to him through the above-mentioned concession, in the interest of the Peabody Museum of Archaeology and Ethnology of Harvard University. The scheme outlined in this concession proved unsatisfactory, and a plan of operations was proposed to General Luis Bogran, then President of Honduras, by which the interests of science would be better served, and which President Bogran, with a praiseworthy zeal for the promotion of scientific research, readily agreed to. The result was an edict of the Government of Honduras by which the Peabody Museum acquired the care of

* Incidents of Travel in Central America, Chiapas and Yucatan. By John L. Stephens. 1841. 2 vols. 8vo.

† Biologia Centrali-Americana, edited by F. Ducane Godman and Osbert Salvin. Archaeology by A. P. Maudslay. Parts I. to IV. London: R. H. Porter.

the antiquities of that country for a period of ten years, with the right of exploring the ruins and taking away one half of the objects found in the excavations. The Peabody Museum thus acquired an unprecedented opportunity for making the investigations, so long delayed but of such vast importance, that are needed to throw light on the early inhabitants of the American continent.

It was proposed to send an expedition to Copan each year to remain during the dry season; and for this purpose a committee was appointed, consisting of Mr. Charles P. Bowditch, Mr. Francis C. Lowell, and Professor F. W. Putnam. The committee is indebted to Mr. Maudslay for valuable suggestions, which from his experience in exploring Central American ruins he is in a position to give, and through him also were obtained the services of skilled workmen who had been his assistants in making copies of the monuments.

The first expedition left Cambridge in October, 1891, in charge of Mr. Marshall H. Saville and Mr. John G. Owens, who had been Professor Putnam's assistants in the Museum, and under him had acquired a training that made them well fitted for the work. Being prevented by his duties from leaving Cambridge himself, Professor Putnam directed the operations in the field by letters of instruction. The expedition was thoroughly equipped with tools for making excavations, and with materials for taking photographs and impressions of the monuments and other sculptures. Important results were obtained by the first season's work, which are referred to in the summary given further on.

The second expedition left in October, 1892, in charge of Mr. John G. Owens as director of the expedition and also as a special commissioner for the World's Columbian Exposition. Mr. Owens took with him Mr. G. Byron Gordon as surveyor, and Mr. Edmund Lincoln and Mr. George Shorkley as assistants. Seldom has an archaeological expedition gone to the field with such brilliant prospects or under so energetic and enthusiastic a leader.

The party arrived at the ruins on the 1st of December, and for the first two months the work went on very satisfactorily. The principal part of the ruins was cleared of brush; a survey was being made; moulds were made of all the monoliths that had not been moulded in the previous year; several excavations were begun which gave most important results, and arrangements were made for obtaining moulds of the great monoliths of Quirigua, in the coast region of Guatemala. It was to make these arrangements that Mr. Owens made a journey to the coast towards the end of January. Two days after his return he fell violently ill with a malignant fever of the country, and notwithstanding the efforts of a mind naturally cheerful, a constitution always robust, and a spirit never daunted, to cope with the violence of the disease, he grew steadily worse, and

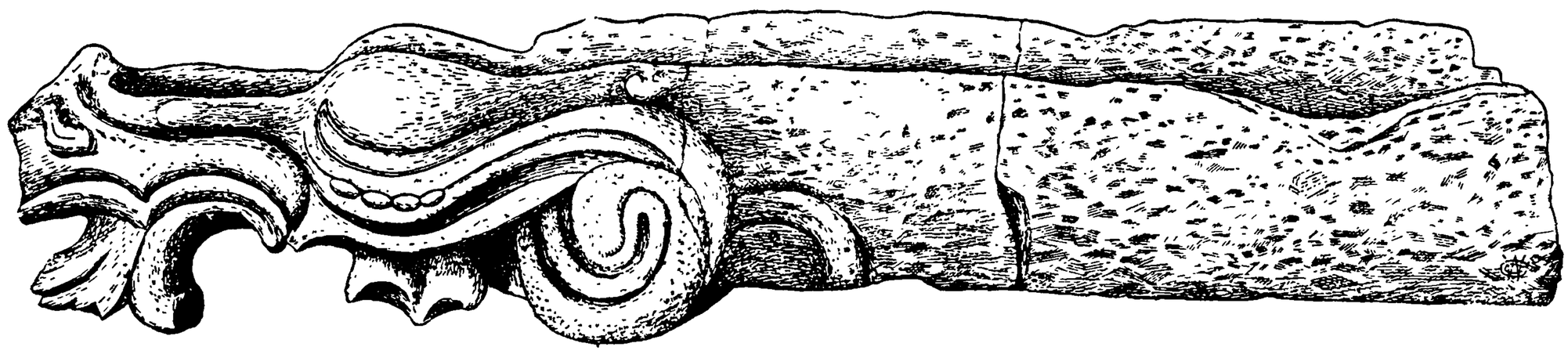
died on the 17th of February, after twenty-one days of suffering. He was buried at the ruins, beside one of the great monoliths in the plaza.

Mr. Gordon then took charge of the work and carried out, so far as possible, Mr. Owens' plans. Don Carlos Madrid, as representative of the Honduras government, was sent to Copan to take part in the division of the objects found; and those constituting the Museum's share were transported to the coast and shipped to Cambridge. The moulds of the Quirigua monoliths were completed, and from some of them casts have since been made.

In the winter of 1893–94 Mr. A. P. Maudslay went to Copan, as the representative of the Peabody Museum, and while there made several excavations, and brought back a number of moulds. In October, 1894, a fourth expedition was equipped, and Mr. George Byron Gordon was appointed director. He arrived at the ruins in December, and was joined in March by Mr. Robert Burkitt, who was sent out with supplies. The party remained in the field until the end of June, 1895.

The route taken by these expeditions has been as follows: — From New Orleans to Livingston in Guatemala, by the steamers of the Royal Mail line; from Livingston to Yzabal by the steamer of the Rio Dulce Navigation Company; and from Yzabal to Copan by mules over the same route as was followed by Stephens in 1839. At Yzabal the members of each expedition have been placed under deep obligation to Mr. and Mrs. T. J. Potts, the only American people living at that place. Mr. Potts, from his intimate knowledge of the country, acquired during a residence of over thirty years, and from his interest in its antiquities, as in all matters relative to scientific research, has been able to render most valuable services, and the Museum has been glad to avail itself of his kind co-operation. The members of these expeditions will always cherish the memory of those happy occasions at his hospitable board, when, after long and weary journeyings and months of hardship and exposure, they were made so welcome there, and so tenderly cared for by the kindest of hostesses, Mrs. Potts.

In Livingston valuable services were rendered to the first expeditions by Mr. John T. Anderson, who was then Consul of the United States at that port. The later expeditions are greatly indebted to Mr. William Owen, manager of the Northern Transportation Company at Livingston, and also to Mrs. Owen, who extended such kindly hospitalities to the members of the expeditions as to win their lasting gratitude.



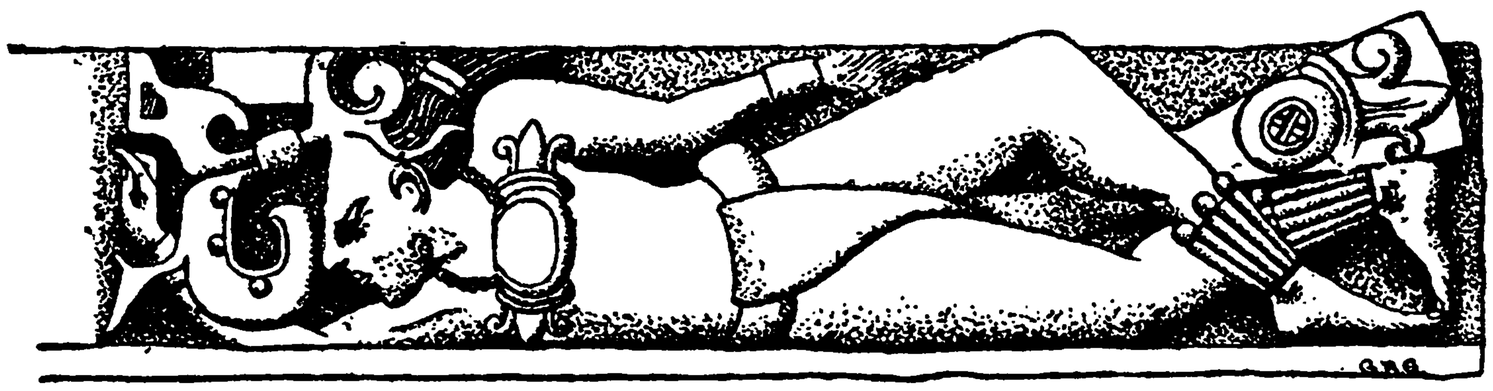
GARGOYLE (SERPENT'S HEAD) FROM DÉBRIS OF TEMPLE. See page 19.

PLAN OF OPERATIONS.

It is the object of the Peabody Museum to preserve the ruins from the injuries to which they have been subjected in the past, and from which they have suffered greatly since Stephens' day. The chief source of these injuries is in the indifference of the natives, who, attracted to the valley by its fertility, do not hesitate to break up a structure or monument to get material for their fences and houses. The monuments have suffered also from fires built near them by the natives in burning brush. To prevent further destruction from these and similar causes, a stone wall has been built around the principal group of ruins, and they have been placed in the charge of a keeper, Captain Don Juan R. Cueva, the faithful companion of the exploring parties, who, in this capacity, resides at the ruins throughout the year.

The rainy season at Copan begins about the middle of June, and lasts till the end of December. During the intervening months the excavations cannot be successfully carried on. The season opens with a series of violent thunder-storms, which continue with increasing recurrence until the end of July, when the rains become less violent, but fall constantly. During the months of March, April, and May the heat is intense during the middle of the day, but the mornings and evenings are cool and pleasant.

The plan of operations adopted in the field is as follows: The whole area on which any remains are found has been divided into square sections. Before a detailed examination is begun on any particular group of ruins or locality, it is carefully surveyed and located on an outline map of all the ruins. Each group of structures is in this way assigned to its proper place on the map, which will thus represent with absolute exactness the whole site of the city, with the shape and character of its structures, as well as the natural topography of the valley. If the group consists of buildings, they are entirely cleared of debris, and then carefully measured and drawn upon an enlarged plan of its corresponding section. Wherever sculptured monuments or hieroglyphic inscriptions are found, they are both photographed and moulded in paper or plaster, to be reproduced in the Museum at Cambridge for further investigation and study.



RESTORATION OF SCULPTURE ON A STEP OF HIEROGLYPHIC STAIRWAY. (See page 22.)

DETAILED DESCRIPTION OF THE RUINS.

THE plan (Plate I.) shows the central group of ruins and the contiguous parts. The nomenclature of the different parts so far as given by Maudslay has been adopted. The principal ruins are grouped about what has been called the Main Structure (Plate II.), a vast irregular pile, rising from the plain in steps and terraces, and terminating in great terraced elevations each topped by the remains of a temple. (See plan, 11, 16, 20, 21, 22, 26.) The summit of the highest of these is about a hundred and thirty feet above the level of the river. Of the temple* with which each of these elevations was crowned only the foundations and parts of the lower walls now remain in position. The place where each stood is a heap of fragments, and the slopes of the pyramids and the terraces and pavements below are strewn with the ruins of these superb edifices. The walls of the buildings and the outer casing of the pyramids and terraces are built of stone, neatly cut in flat-faced oblong blocks, and laid in parallel rows, occasionally with mortar, but generally without. All these stone walls and casings appear to have been plastered, and the plaster decorated with paintings; but only slight traces of these remain.

Little attention seems to have been given to breaking joints in the stone work; and while generally some care seems to have been taken to prevent the joints in contiguous rows from falling together, no definite system of breaking joints was adhered to. This is rather surprising when we consider the nicety with which the blocks were cut, and the perfect regularity of the rows. The slopes of the pyramidal foundations are built in terraces about five feet high and five feet broad, or in steps consisting of single or double rows of stones, the step or terrace being generally, if not always, covered on top with a layer of mortar cement.

The interiors of all the raised foundations and pyramids, so far as known from excavations made, are filled with rough stones and clay, which show signs of having been very carefully laid for solidity and strength. It is not unusual to find in the interior of the pyramids a second casing, or at least secondary walls and terraces; but whether these form in any instance complete interior casing, or whether they are confined to one side or part of a side, has not been determined. The question of their meaning has been

* The same number is used to designate a mound or the temple on its summit.

complicated by the discovery of similar walls below the foundations of some of the pyramids. These underground walls can best be seen on the river front (Plate II. 1) where the face of the exposed cliff formed by the action of the river presents patches of faced wall more than half-way down. It was probably the existence of these walls that led to the erroneous belief in what has been called the great wall of Copan.

Mr. Maudslay seems to have been of the opinion that the object of these interior walls was to strengthen the structure and bind it together. But the conditions under which they are found seem to preclude this theory from general application, although it may very well apply to particular cases.

Mr. Owens, who gave a good deal of attention to the problems presented by the river front, was inclined to believe that these underground walls marked different stages in the development of the structure, and were in fact the remains of older buildings that had been occupied for a time and abandoned in the gradual building up of the great complex structure to its ultimate form. The cause of this abandonment of buildings now beneath the foundations of others can be readily ascribed either to the changing tastes and requirements of the people or to the pride of rulers for whose glorification the works and dwellings of their predecessors had to be sacrificed to give place to temples in their honor. There is some actual evidence in the condition of the buildings, as we find them on the surface, to support the theory of a gradual alteration in the shape and size of the buildings: Temple 50 was built against the side of Pyramid 16, its wall resting on the terraces. In the eastern end of Temple 22 a doorway was found walled up. Two lower chambers in Temple 20 were found filled with clay and rubble, and their doorways closed by walls. All this would seem to indicate a gradual addition of new features accompanied by abandonment of older parts. It can readily be seen how a process of this kind carried on for centuries, without any well-designed plan to adhere to or any definite idea to carry out, would result in a great complex mass of structures like that of Copan to puzzle and perplex the explorer.

There are other evidences that point to several successive periods of occupation. The river front presents what looks like at least three great strata, divided by floors or pavements of mortar cement. If these floors mark the various levels corresponding to different epochs in the history of the city, the question of the age of the ruins becomes still more complicated; for between each successive period of occupancy there is the period of silence, the length of which can only be inferred from the thickness of the superimposed stratum. The questions thus raised by the results of the first investigations can only be settled after extended exploration and study.

In the interior of the Main Structure are two enclosed courts, their floors, paved with mortar cement, being sixty-five feet above the level of the river. One of these, the Eastern Court, is entered from the south by a narrow passage, between Mounds 16 and 18, formerly closed at its southern end by a thick wall, now broken down in the centre. The sides of the court are built up with solid stone-work in seats or terraces as in an amphitheatre. About the centre of its eastern side the terraces have been torn away and a deep pit made underneath, revealing the end of a tunnel which leads to the vertical face of the cliff overhanging the river. This pit also gives access to a small chamber directly beneath the inner end of the tunnel. The following is quoted from Maudslay (page 31):—

"Palacio in his description mentions the 'two caves or passages' the openings of which can be seen on the face of the river-wall, and which have given to the ruins the name of 'Las Ventanas,' or 'The Windows.' . . . The floor of the passage is level, and the interior is faced with stone, and is just large enough for a man to crawl through. The top of the passage is a little below the level of the court; it was closed on the land side, and I think not intended again to be opened. A deep pit was dug here by Colonel Galindo, shown in the plan, which now gives access to the passage.

"A few feet from the end of this passage, but at a greater depth below the level of the court, is the subterranean vault, . . . which was broken into by Colonel Galindo. The vault and passage do not seem to have had any connection with one another. The following is Galindo's description of his discovery:—

"'Through a gallery scarcely 4 feet high and $2\frac{1}{2}$ feet broad one can crawl from this square through a more elevated part of the temple overhanging the river, and have from the face of the precipice an interesting view. Among many excavations, I made one at the point where this gallery comes out into the square. I first opened into the entrance of the gallery itself, and digging lower down I broke into a sepulchral vault whose floor is 12 feet below the level of the square. It is more than 6 feet high, and 10 feet long, and $5\frac{1}{2}$ feet broad, and lies due north and south, according to the compass. It has two niches on each side, and both these and the floor of the vault were full of red earthenware dishes and pots. I found more than fifty, many of them full of human bones packed in lime; also several sharp-edged and pointed knives of chaya (a brittle stone called *itztli* by the Mexicans), and a small head, apparently resembling death, its eyes being nearly closed and its lower features distorted. The back of the head is symmetrically perforated by holes; the whole is of most exquisite workmanship, and cut out or cast from a fine greenstone, as are also two heads I found in the vault, with quantities of oyster and periwinkle shells brought from the seashore in fulfilment of some superstition. There were also stalactites taken from some caves. All the bottom of the vault was strewn with fragments of bones, and underneath these a coat of lime on a solid floor.'

"There is another similar passage lower down the cliff and further to the north. We made a ladder and succeeded in entering this passage and crawling to the further end, which we found closed with a stone wall. It is about the same length as the first passage described."

On the plan (Plate I.) the tunnel is indicated by dotted lines, and the vault is shown in the same way in its place beneath the terraces, which are shown continuous above the vault, and not broken as they are at present.

All the accounts of this tunnel contain several errors. Its real dimensions are: Height, 3 feet; breadth at bottom, 2½ feet; length, 65½ feet. The floor is not level, but has a downward slope toward the river of about three feet in the whole length, the floor at the inner end being on a level with the floor of the court.

The following description of the tunnel is from Mr. Owens' field notes:

"The walls of this passage are built of well-dressed stones of the same kind as had been used for building purposes throughout the ruins. In the construction of the tunnel a foundation of three rows of stones cemented together was first laid, the stones of the central row being flat and undressed and of greater length than the stones forming the row upon either side which support the side walls of the tunnel. Throughout nearly the entire length of the passage each side wall, up to the spring of the arch, consists of four courses of stone of nearly equal thickness. At the western end of the passage, however, but three courses of larger stones are employed, and the south wall at this point begins with only two courses, one large stone taking the place of two. The south wall changes from three to four courses, 8½ feet from the west end. A corresponding change in the north wall takes place 15 feet from the same end. The arch springing from the side walls is of the horizontal type, and there is nothing peculiar in its construction.

"All the side stones are laid in cement, but I could not see that their surface had ever been plastered, or that any cement had been used to secure the cap-stones which consisted of large flat stones about a foot thick, and long enough to reach almost to the outer edge of the widest side walls.

"The floor of the passage was of cement, slightly convex and about three and a half inches thick midway between the walls.

"The central row of stones forming a part of the foundation has been removed for the distance of seventeen feet from the east end, and only eleven feet of the cemented floor at the western end of the passage is in place."

Maudslay's authority for the statement that the tunnel was closed at the inner end (or land side), and not intended to be opened again, is not apparent; but he probably derives it from Galindo's statement that he "first opened into the entrance to the gallery itself," which therefore must have been closed previous to his excavation. This was undoubtedly the case; and the lower row of stones forming the first seat or terrace rising from the floor of the court still remains. It is, however, by no means certain that a smaller aperture did not connect the shaft with the court at a higher level. A case apparently of this kind exists in the second tunnel referred to by Maudslay. This is some distance farther north and lower down, and is thus described by Mr. Owens: —

"As we found it, this tunnel was open about 40 feet, the end being closed by rough stones imbedded in cement. Small boys were employed to enter and remove the filling. As the cement was very hard, the work progressed very slowly; but after following the side walls for about fifteen feet they were rewarded by coming to the end of this filling, and for 65 feet beyond the tunnel was practically empty. The entrance to this inner part was scarcely large enough for a man to crawl through, being only 17 inches wide and 13 inches high. The width remained the same throughout the entire length; but the height and character of the roof changed remarkably, and there was a constant downward slope toward the river. At one place what appeared to be a triangular watercourse came down through the roof at an angle of 30 degrees. On the floor were found a few potsherds, some bone needles, jade beads, and shell ornaments. This inner end of the tunnel is about 115 feet from the face of the cliff, and about 40 feet below the surface. I am not able to say positively for what it was originally intended, but it was probably a water-course, as its floor is level with what seems to have been an old plaza now buried 40 feet below the surface."

Directly opposite the pit dug by Galindo, on the western side of the court, is the stairway referred to on page 29 and figured on page 17 of Maudslay's work, and called by him the Jaguar stairway. A broad flight of steps leads to a narrow platform. At a short distance from either end is a large figure of a jaguar, rampant, as is supposed by Maudslay, inserted in the wall. Above the platform two steps extend the entire length of the court, and above these a narrow stairway of six steps leads to the elevated platform that separates the eastern court from the western. In the centre of this stairway is a structure carved on the face into a huge dragon's or serpent's head, holding in the extended jaws a large grotesque human face.

Upon the platform above is what looks like the stone foundation (25) of an oblong building, but there are no signs of any building having stood upon it. To the west of this, directly above the Western Court, are the ruins of a building, close to the eastern wall of which is Sculpture Z, discovered in April, 1893. At a short distance to the south, close to the side of Pyramid 16, are the remains of a building (50), explored by Saville and Owens in 1891–92.

The following account of this building (Plate III. 1) is taken from Mr. Saville's report: —

"Two mounds are represented on Maudslay's map, but before excavation they presented an L-shaped mass of earth and cut stones at the base of the pyramid. The part which is called the eastern wing extends from east to west at the base of Pyramid 16, and looks more like a mass of debris, fallen from the building above, than the remains of a separate structure. The western wing extends north from the western end of the eastern wing, running parallel with, and close to, the edge of the terrace above Stela P in the Western Court.

"The trees were first felled and burned, and the mound was cleared of the mass of stones on the surface which were then thrown down the terrace into the southwest

corner of the Eastern Court, and thence carried to the southern end of Mound 18 and thrown into the river. The same plan was adopted with the earth, which was carried away in wheelbarrows.

"The eastern wing proved to be a building consisting of two rooms, 24½ feet long and 17 feet wide. The southern or back wall rests on one of the terraces of Pyramid 16. The northern wall, 2.4 feet in thickness, through which a doorway 6.25 feet in width gives access to the first chamber, is almost destroyed, only the base stones remaining in place. The eastern and western walls are about 2 feet in thickness.

"The northern chamber is 20 feet 6 inches long and 5 feet 8 inches wide. Its floor is raised by a single step in the entrance to a height of 1 foot above the pavement outside. In either end of the chamber small niches, about 2 feet in width and about 3 feet above the floor, had been left in the walls. In the centre of the southern side a doorway 7 feet wide gives access to a second chamber, whose floor is raised 9 inches above the floor of Chamber 1. Chamber 2 is of the same length as that of the first room, and 6½ feet wide. In the eastern wall is a niche 2 feet 10 inches above the floor and 2½ feet wide. Above the floor of the niche, which is cemented to a depth of 2 inches, the wall is destroyed. In the western wall is a niche 2 feet 1 inch above the floor; this is 2 feet 1 inch wide, 1 foot 7 inches high, and 10 inches deep.

"A few fragments of animal bones were found resting on the cement in this niche.

"The height of the terrace of Pyramid 16, on which the southern wall of the building rests, above the floor of Room 2, is 2 feet 9 inches, and is covered with 4½ inches of cement, making a total height of 3 feet 1½ inches. It has a slant of 4 inches from the base.

"The height of Chamber 2, from the floor to where the roof-stones begin, is 6 feet 3 inches. The western wall of the room, at present, is 5 feet 8 inches in height. Adjoining the western wall of this building there is a single chamber, the southern wall being built against and partly resting on the terrace of Pyramid 16. This Chamber 3 is 11 feet 9 inches long and 5 feet 7 inches wide. The doorway is 3 feet 9 inches wide, and the northern wall is 1 foot 7 inches in thickness.

"In the southern wall are three niches 2 feet 8 inches from the floor; they average 2 feet in width, 1 foot 7 inches in height, and are 1 foot 4 inches deep at the base, and 3 inches deeper at the top, owing to the slant of the terrace against which the lower part of the wall is built.

"In the western end of the room are two ledges running the width of the chamber. The first is 2 feet 10 inches high, and 1 foot 3 inches wide; the second is 3 feet above the first, and is of the same width; both are covered with cement. The wall against which these ledges are built is 3 feet 3 inches in thickness. The stones of the roof at the western end of the chamber are still in position, but are somewhat sunken, the height from the floor to the base of the capstone being about eight feet. The top of the roof at the northwestern corner is still intact; it is covered with two inches of cement, and is 9 feet 3 inches above the floor of the chamber.

"The western wing is 38.5 feet long, and consists of a single chamber, with an entrance about 10 feet wide on the east. In the doorway two steps lead down to a platform or terrace 5.50 feet wide, running the whole length of the front; a flight of four steps leads from the platform to the pavement below. The walls of the chamber are nearly all destroyed; in the southern end the floor is raised 2.5 feet. The

northern wing seems to have been built later than the eastern. All the floors in this building are made of mortar cement.

"The sculptures found in the digging were few and unimportant. In the chamber between the two wings were found a small shallow bowl, a fine chalcedony spear-point, two broken obsidian spear-points, a few obsidian knives and flakes, some fragments of polished bone, and a small pottery face. No lintels of any kind were found about the doorways, and there was nothing to indicate the purpose for which the rooms were used."

From the elevation on which this structure is built, the Western Court is reached by a fine flight of steps of solid masonry, well preserved (15). At a short distance to the south of this stairway, in the Western Court, stands Stela P, facing the west; Catherwood's drawing of this face is given opposite page 140, Vol. I. of Stephens' "Incidents of Travel in Central America."

Farther south, at a few feet from the base of Pyramid 16, is Altar Q. This is described by Stephens, pages 141–2, Vol. I., with reproductions of Catherwood's drawings. Directly west from this is a flight of steps, with a plain circular stone at its base, ascending the raised platform (13), on which are strewn some broken fragments of sculpture and a quantity of loose building stone. At the southern end of this court is the structure designated 14, partly explored by Maudslay in 1885, and again by Saville and Owens in 1891–92. It resembles the foundation of a building, but does not seem to have supported a building of any kind. In front of its northern wall is a platform raised in three steps, running nearly the entire length of the structure. Two circular blocks of stone, each pierced by a hole in the centre, are placed symmetrically at either end of the platform; their use is not apparent, but they may have been used to support poles for an awning. On the north side of the mound, opposite the corners, are large flat slabs, each with an inscription around three sides. They are now displaced and broken. A number of loose sculptures, which are described by Maudslay (pages 23 and 24), are lying about the floor of the court.

Directly above Altar Q on the slope of Pyramid 16, the stairway by which the slope is ascended is divided from the twentieth step by a raised structure formed of large steps having, in high relief in front, rows of what have been called "death's heads." They look like the skulls of monkeys, as Stephens suggests, bare of flesh but with the eyeballs glaring in their sockets.

Maudslay made an excavation into the top of the mound where the temple stood, and found portions of the walls of a lower chamber, and part of a stairway which led to upper chambers of which nothing remains. Among other sculptures lying in the interior of the chamber mentioned, Maudslay describes (page 25) "a number of small human and grotesque heads" which "formed the ornaments of a cornice round the wall about seven feet above the cement floor."

From the Western Court a passage or gateway leads into the narrow court just south of Pyramid 16. On the right hand are the remains of some long stone houses, and directly back of these the terrace terminates in the southern slope of the Main Structure, broken by the terrace on which is Mound 29. This terrace forms the southern termination of the Main Structure. An inclined plane (42) leads from it to the ground below, which is covered with the remains of stone houses. From the passage-way leading to the Eastern Court, a steep flight of steps leads to the terrace (17), bounded on the east by a long range of steps or seats leading to another terrace, which terminates in the irregular contour of the cliff at a height of a hundred feet above the river. On the northern half of this terrace there still remains part of a building (19), most of which has fallen down the face of the cliff. Still farther north are the remains of a high tower or temple (20), partly explored by Maudslay. A portion of it has fallen away into the river below, and the remainder overhangs the very brink of the precipice. Maudslay, on pages 26–27, gives the following account of his discoveries at this point: —

"This line of tumbled stones (No. 19) I examined with great care, and was successful in making out that it was the remains of a row of houses which had extended nearly the whole length of the terrace, the greater part of which had fallen away into the river below. At the north end of this row of houses, there stands, facing the Eastern Court, another raised foundation (No. 20), which supported the most curious building the excavations brought to light, — no doubt the same building which Palacio describes as a tower. Such a mass of stone had fallen down into the court below, that the stone slope and steps leading up to the building were completely hidden. On the side towards the river, traces of a wall were found almost overhanging the cliff, which here measures 107 feet in height from the level of the river."

"The central doorway is approached from the Eastern Court by a flight of steps; on each side of the doorway a platform or terrace 9 feet wide runs in front of the building; 7 or 8 feet inside the doorway, another flight of steps commences and runs through to the back wall of the building, rising about 14 feet. At the distance of 4 feet 9 inches from the back wall, other steps turn to the north, and lead up to a narrow landing which gives access to what seems to have been an upper chamber; only a small portion of the surface of the wall and the cement of the floor of this chamber can now be traced. The stairways were covered by parallel-laid stone vaults. . . . The most curious feature of this building is the existence of chambers which have been purposely blocked up before the ruin commenced. . . . I cleared out the rough blocks of stone and earth which filled up the lower chamber on the south side of the steps, and found the walls and cement floor almost perfect. The front wall was pierced 3 feet above the floor by two narrow slits 6 inches wide, which appeared to extend to the top of the wall, in which were found some fragments of rough pottery. It did not appear as if this chamber had ever been roofed in. I did not remove the stones at the opening towards the stairway, as these had been built up into a faced wall, and still supported some of the roof-stones of the

ruined vault over the steps. In the same way the steps leading to the upper chamber had been blocked up, and the faced wall used as a support for the vaulting. . . . The only suggestion I can offer in explanation of this state of things is that the builders were not satisfied with the stability of the parallel-laid vaulting over such a large space, and had sacrificed the chambers in order to strengthen the roof over the stairway.

"Projecting from the wall on each side of the steps were two grotesquely carved heads, which probably supported a rope from which a curtain was suspended. . . .

"A large mass of broken sculptured stones lying near to or buried in the rubbish surrounding this building shows how elaborate its exterior ornamentation must have been. Amongst these remains are portions of a great human figure, which was probably seated cross-legged over the doorway."

To the north of this is Temple 21, which was explored and cleared of debris by Owens and Saville in 1891–92. It rises from the elevated terrace (Plate III. 2) at the north side of the Eastern Court, and, together with the Great Temple (22), explored by Maudslay in 1885, commands the northern side of the Main Structure above the Eastern Court. No. 22, one of the largest buildings that have so far been explored, is thus described by Maudslay (pages 27 to 29):—

"A very well-laid flight of steps, formed of large blocks of stone, leads to a platform in front of the centre doorway. This platform runs along the front of the building, and, at each end of the temple, is carried out at right angles as far as the line of the commencement of the steps. Two large grotesque faces and some handsome carved wing-stones extend across this platform to the head of the steps on either side of the doorway. The doorway itself is 9 feet wide, and was probably covered with a vaulted roof. In front of the doorway leading to an inner chamber is a step, 2 feet high and 15 feet long, carved on its face with hieroglyphs and skulls. At each end of this step is a human figure seated on a huge skull, supporting in its hand the head of a dragon, whose body is turned upwards, and is lost among the scroll-work and figures of a cornice which runs over the doorway. About four feet above the floor in each of the two positions marked ×, a stone in the masonry of the wall is pierced by a hole through which a rope could be passed, and holes may also be noticed above the hieroglyphs on the step, which were probably needed for the support of curtains. How the roof of the passage between one chamber and the other was supported is a mystery. It was covered by a number of blocks of stone, and not by a single stone slab; and yet these blocks are square at their edges, and could not have formed part of a true nor of a parallel-laid arch. Possibly wooden jambs and architraves supported these blocks of stone; but if so, all trace of them has disappeared. . . .

"The floor and walls of the outer chamber, as well as the surface of the steps and terrace outside the house, bear traces of a coating of several layers of plaster, each layer differently colored, showing that the plaster had been frequently renewed, and this plaster coating appears also to have extended over the carved surface.

"The inner chamber is without ornament. Two stone incense-burners shaped

into grotesque heads, and some patches of charcoal, were found above the cement floor. The back wall of the house was only just traceable. The outer surface of the front wall facing the Eastern Court had almost disappeared; but that it must once have been elaborately ornamented is proved by the number of headless busts and other fragments of sculptured stone lying near it in all directions.

"On the outside wall of the building at the southwest corner are the remains of a huge grotesque face made up of several stones, much the same in design as the faces which form the principal decoration of some of the buildings in Yucatan. However, the trunk-like nose, which has there so greatly exercised the speculative powers of travellers, if it existed here cannot now be traced. I opened a passage about 4 feet wide between the west end of this house and another much-ruined building, and on this west wall I was able to see some of the ornament, if not exactly in position, at least giving evidence whence it had fallen.

"Three female figures, standing out in full relief from the waist upwards, with the left arm held across the body and the right hand extended in front, palm outwards, as if about to clap hands when in the act of singing, had been ranged along the upper part of this wall; and broken pieces of similar figures, found in other places, lead me to suppose that this decoration was continued all round the temple." (See Plate IX. 1, 2.)

The excavation of Mound 21 brought to light an interesting building occupying the space between Mounds 21 and 22; its walls abutting those of the two mounds. Although neither so large nor so elaborate as Temple 22, and apparently of less importance, it is one of the largest and most prominent of the temples.

From the manner of contact of its walls with those of the mounds, it seems to have been of later construction.

From the floor of the terrace that runs along the northern side of the Eastern Court above the range of seats, four steps (21 *a*) lead up to a terrace in front of the entrance to this temple (Plate IV. 1). A doorway, 7 feet wide, leads to an outer chamber, 25 feet long by 7 feet wide, with floor 12 inches higher than the terrace outside. Across the eastern end is a raised bench or table, 5 feet wide, covered on top with mortar cement, and in front of it is a step 8 inches wide. In the western end there is a square niche in the wall. In the centre of the northern wall is a doorway, 8 feet wide, leading to the second chamber. The floor of this second chamber is about 2 feet above the floor of the outer.

The row of stones composing the threshold projects three inches in front of the wall on the outside, and this projection continues the whole length of the wall. A row of carefully cut hieroglyphs runs along the face of this step, and continues to a distance of twenty inches on either side of the doorway. Under the centre of the doorway, and also at each side, the glyphs are replaced by two circular depressions connected by a loop. In the face of the stones below is a square depression, corresponding in position and width to the mark on the centre of the threshold, and on either side of it a smaller

square with the diagonals running vertically and horizontally; at a short distance on either side of this is a circular depression.

Nothing in the shape of lintels was found about either of the entrances. The inner chamber has the same dimensions as the outer, and like it is floored with a layer of mortar cement six inches thick. The southern wall is three feet thick, the wall dividing the two chambers three feet and a half, and the northern wall four feet and a half.

Outside the eastern wall of these chambers a narrow gallery running from north to south divides the building into two parts; the floor of this gallery is several feet above the level of the floor of the inner chambers, and the remains of the building to the east of this are at a higher elevation.

A stairway leads up from the floor north of Mound 20 to a landing with a small chamber in Temple 21 (Plate III. 2). From the north side of this landing a closed stairway, of which only four steps remain, probably led to a higher chamber or set of chambers. The stairway leading from the floor below is very steep, the steps consisting of two rows of stones, of which the upper projects two inches over the front of the lower. At either side are a number of little platforms at different elevations. The upper part of the stairway, where it passed over a transverse gallery, is gone, and the method is not apparent by which the steps were supported above the gallery.

To the east of this stairway on the level of the pavement is a low chamber or vault, roofed over with stone, covered with several layers of cement. It has two openings in front with lintels of stone, and a small passage leads from it to the face of the river front. On the front part of the roof was a terrace or platform, terminated on the north by two columns built of square blocks of stone, and apparently used to support the roof of another chamber or vault which is gone. Plate IV. Fig. 2, shows the masonry about these vaults, and the openings to the lower vault. A flight of four steps (seen on the right in the illustration), facing the west, leads up from the pavement directly in front of this vault, to a platform in front of a ruined wall, in which a doorway opens upon the remains of a cemented floor overhanging the river. The wall to the right of these steps has a panel formed by a projecting border of stones, and in the bottom of the wall a small opening leads to the face of the cliff. In the excavation of this temple many pieces of sculpture fallen from the ruined façades were removed during the progress of the work. In the interior of the chambers were found two faces in stucco, some obsidian spearpoints, and discs of obsidian, and a beautiful stone chisel.

Immediately north of these ruined temples the northern slope of the Main Structure (Plate II. 2) descends abruptly by large steps or terraces, now much broken and buried beneath quantities of building stone and broken sculptures fallen from the temples above. (Plate IX. 1, 2, 3.) At the foot of the

slope is a low terrace covered with fragments of sculptured stone. From its western end the slope of Pyramid 26 rises to a height of over a hundred feet, strewn with sculptured fragments and building stone. So completely has the ruin been accomplished at this point that not a trace remains of the temple which crowned the summit; but the excellence of the sculptures heaped on every hand bears testimony to the high artistic merit of its architecture.

Attached to the northwest corner of Mound 26 is the low oblong structure, Mound 10. It appears to have the remains of a building on top. A terrace projects from its northern end, and turns at right angles to the west; on the top of its western wing is the square Altar L. Westerly from Mound 10 is Pyramid 9, about forty feet in height, having chambers on the top; at the bottom of its eastern slope is an inclined plane paved with square flat stones, and on the western slope of Mound 10 opposite is a similar inclined plane.

In the space between Mounds 9 and 10 a stone pavement was discovered, covered with a foot of black vegetable mould. The stones of the pavement

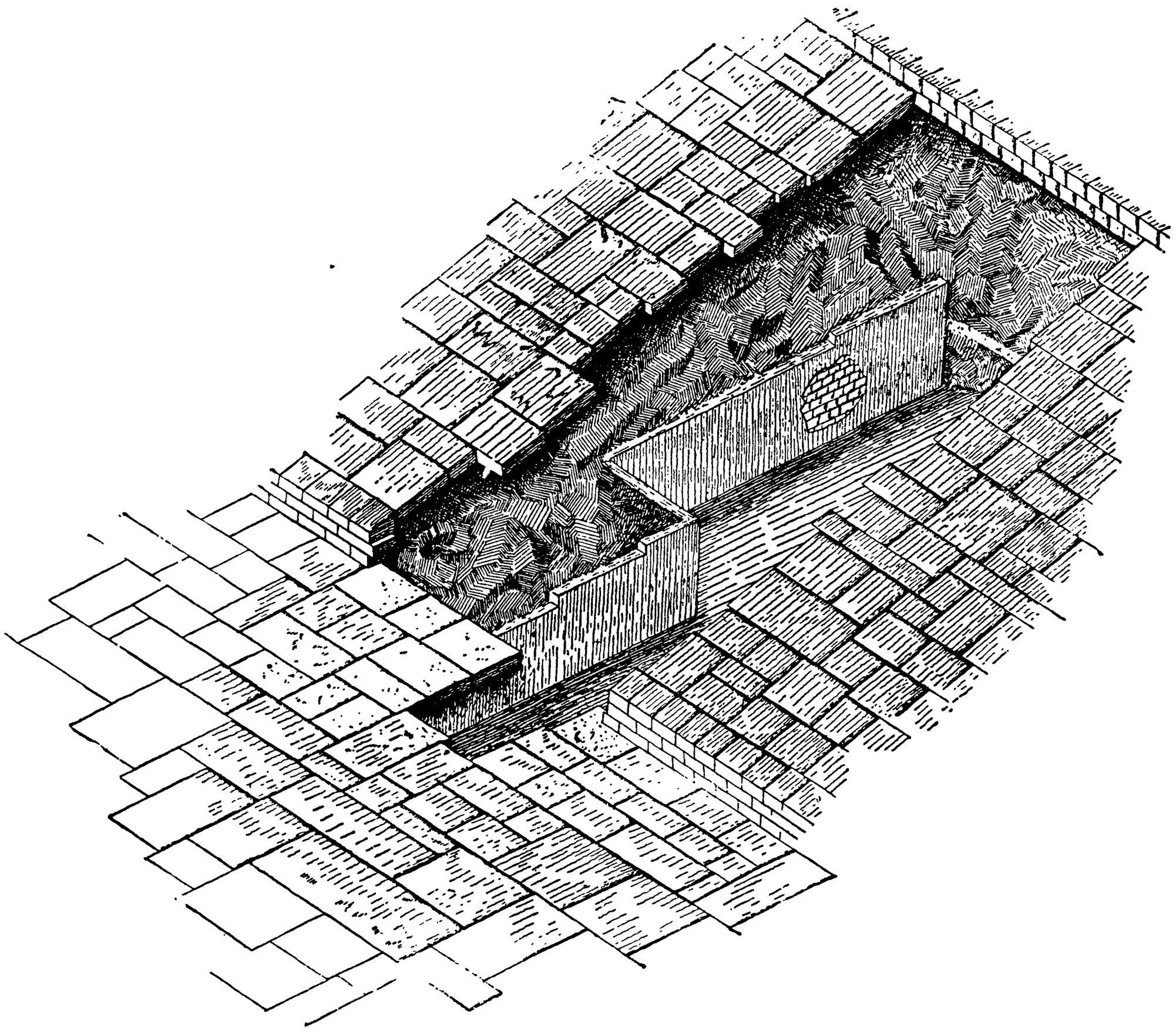


FIG. 1. — EXCAVATION UNDER INCLINED PLANE AT EASTERN SIDE OF MOUND 9.

vary in size and shape. Some are square, and measure from eight inches to three feet on a side; others are oblong, and sometimes as much as four feet in length. All are nicely cut and fitted together, and the upper surface is smooth as if worn by use. In removing some of the stones forming the pavement of the inclined plane on the east side of Mound 9, one was found having two glyphs on its under side. It appeared to have been cut from a larger piece having an inscription. Beneath this pavement an excavation was made (Fig. 1). On a level with the pavement of the court the top of a wall was found running at right angles to the edge of the mound; it is faced toward the north, and was plastered; at a depth of one foot from its top a mortar floor was reached, extending in front of the wall to an unknown distance. Below this the wall continued to a depth of three feet, and at the bottom is another floor. The space between the floors was walled up with red clay and large pebbles. The excavation was continued, following the wall and the lower floor toward the centre of the mound; at a distance of fifteen feet inwards the wall turned at right angles and ran three feet to the south, then turned again at right angles and continued toward the centre of the mound a distance of fifteen feet, and again turned at right angles toward the south. At this point the excavation was discontinued in order to do other work deemed more urgent. No explanation can at present be given of these underground walls and floors. They are entirely below the surface of the surrounding plaza; the upper parts of the walls are broken and irregular, as if part had been torn down, and they are completely buried by the underfilling of the mound; the entire face was plastered, and the plaster at the corners showed traces of paint. There seems to be only one reasonable conclusion, — that they are the remains of older buildings that had been condemned or were in ruins before the later structures were built.

At a distance of eighteen feet inward from the edge of the inclined plane and two feet below the level of the plaza, a shell (*Spondylus calcifer*) was found close to the wall. This shell contained a large bead of polished jadeite; the remainder of the space within the shell was filled with cinnabar.

The north side of this mound (9) was cleared also; it consists of steps like a stairway, and is in a very good state of preservation.

Upon the top of Mound 9 are a series of chambers which have been partly cleared. Here was found a small jar, with a wash resembling a glaze. It stands on three hollow legs, in each of which is a small loose ball of clay.

On the western slope of Pyramid 26 (Plate V. 1), reaching from the floor of the plaza to its summit, a distance of more than a hundred feet, was a grand stairway, the ruins of which impress upon the beholder a deep sense of its vastness and complexity, and force upon him a conviction of what must have been, from the beauty of its situation and the barbaric grandeur of its architecture, the effect of the city in its prime. It is in

complete ruin; and, before excavation was begun, it was so deeply buried beneath the accumulated soil and rubbish that one might easily pass it by without suspecting its character. The discovery of its real character is due to Mr. John G. Owens, who in January, 1893, began an excavation in this place, which, though he did not live to see it completed, resulted in this important discovery. The whole structure is being thoroughly explored, and it is hoped that all the sculpture, or enough of it to indicate its character and design, will be preserved for the ultimate restoration of the stairway. Each step has a row of hieroglyphs running the entire length of its face, for which reason it has been called the Hieroglyphic Stairway; and by this name it will be hereafter designated in our work. Several of the stones which formed a portion of this stairway are shown on Plate V. Fig. 2. A seated human figure (Plate IX. 4) was discovered among the debris. A description of this stairway is deferred until its further exploration leads to a better understanding of its structure.

To the southwest a broad flight of steps, forming the northern termination of the Main Structure at that part, rises from the plaza. Twenty-nine great steps lead to a narrow landing, at the western end of which, at a slightly greater elevation, is a flat platform. From this landing the stairway ascends again, the western end leading to an elevated platform covered with fragments of sculpture fallen from Temple 11. The eastern end of the same stairway leads to the level height at the east of Temple 11, on the same plane as the terraces surrounding the Eastern Court. The central portion of the stairway probably ascends to the entrance of the elevated Temple 11, from which such a quantity of material has fallen as to bury the stairway many feet deep. Temple 11 was one of the largest and most elevated in the group. It was probably a tower, and must have been of considerable height, judging from the quantity of stone lying around its base in every direction. It has never been thoroughly explored, although Maudslay made some excavations into the lowest chambers which were still standing. On pages 21–22 of his volume he gives the result of this investigation as follows: —

"This building presented the appearance of a formless heap of stones, out of which a huge ceiba tree was growing. Some portions of the chambers were excavated. The porches on each side probably extended some distance beyond the line of the walls of the building. The roof and superstructure had entirely disappeared, but the inner wall was in places perfect up to the spring of the vault.

"A step about eighteen inches high and eighteen feet long, formed of two blocks of stone, projected in front of the inner doorway; the face of this step is ornamented with a number of figures seated cross-legged and covered with elaborate breastplates and other ornaments in sharp and well-preserved carving. A carved ornament, made up of several stones let into the wall, rises from this step, on each side of the doorway, and reaches to the top of the wall. This carving is, I believe, meant to represent a

huge serpent's head without a lower jaw; but the design is executed in a conventional form, and its meaning can only be made out by comparison with many other sculptures of a similar kind.

"The effect of this ornament must have been considerably marred by the continuation of the wall of the passage to the face of the step.

"Above this curious ornament, and extending to a distance of seven feet on each side of the doorway (and probably continued over the doorway itself, although all trace of it has disappeared), ran an elaborate cornice, ornamented with seated human figures and hieroglyphs carved in medium relief. The height of the wall from the floor to the cornice is about nine feet. Ornaments similar to the serpent's head already mentioned occur where a step descends into the southern porch; but in this case the face of the step is ornamented with a row of teeth, and it forms an under jaw common to the serpent's head on each side. Unfortunately no copy of this design could be made, as the carved stones comprising it were so much broken and displaced by the pressure from above and the growth of the roots of trees that they fell to pieces as the excavation proceeded.

"The interior walls of both the outer porches were ornamented with hieroglyphic and other carvings; but here also the stones were so much worn and displaced by the roots of trees that nothing could be preserved or copied.

"The walls of the house are built of blocks of stone averaging in measurement 1 foot × 1 foot × 6 inches.

"The wall-surfaces retained traces of a coating of plaster which had probably been ornamentally coloured, and the floor was covered with several layers of cement."

To the north of this is the Great Plaza of Copan; and the whole space from the place where Stela N stands to the north end of the Plaza appears to have been paved with mortar cement, now nearly all broken up by the vegetation, and mingled with the soil. In patches where it is still entire, it is covered with about a foot of black vegetable mould.

In the Plaza are thirteen Stelæ, each having in front of it a sculptured block of stone to which the name of "Altar" has been applied. Excellent drawings of the principal stelæ made by Catherwood in 1839 are given in Stephens' Incidents of Travel in Central America, Vol. I.; and in Maudslay's work photographs of the originals and drawings made from plaster casts of nearly all these stelæ are reproduced with admirable fidelity. Of the plaza group of stelæ, six (A, B, D, F, H, N) are standing, the others are fallen and broken (Plate VI. 2).

In the plaza is a Pyramidal Mound (4) with stone casing in the form of steps; it runs up almost to a point, and had no building on top. Maudslay made an excavation into its southern side, and found the interior to be built of rough stones and hard rammed earth.

"The upper part was composed of rough unworked blocks of stone and mud, with occasional layers of cement and sand; the lower two thirds of stone and mud only. The excavation was then continued below the level of the plain, through about twelve feet of hard-rammed earth, free from stones, below which the natural soil appeared to

have been undisturbed. In the centre of the mound, about six feet from the top, an earthen pot was found containing a bead-shaped piece of greenstone, pierced, diameter two and three quarters inches, the jade whorl of a spindle, the remains of a necklace of nine jade beads, four pearls, some small rough figures and other ornaments cut out of pearl oyster-shell, and other irregular pieces of roughly carved pearl-shell. At the bottom of the pot was some red powder (which proved to be finely ground cinnabar), and several ounces of quicksilver. Eighteen inches above this pot some traces of bone were found, mixed with sand. At the level of the ground, more traces of bones were found, mixed with red cinnabar powder and sand, and one large pierced bead-shaped stone, diameter three inches. About eight to nine feet below the level of the plain, a skeleton of a jaguar was found lying under a layer of charcoal. I was able to preserve some of the teeth and some part of the jaw, as well as a few small pieces of the other bones, by dropping them into glue. The teeth and part of the skeleton had been painted red. About 100 yards almost directly to the south of this mound, I shortly afterwards opened another very much smaller and much more ruined mound (No. 5),* and, under a thick layer of cement at the level of the ground, found a few small fragments of human bones, two small stone axes, and portions of another jaguar's skeleton, and some dog's teeth, showing that such an interment of animals was not a matter of chance." — MAUDSLAY, page 20.

This plaza has the appearance of an amphitheatre; ranges of seats or steps enclose it on the eastern, northern, and western sides, while the southern side is open. Above the steps on the eastern side a level area extends eastward to Mound 3. On its northern side this area is bounded by a range of steps leading up to a more elevated terrace, on which are what appear to be the remains of stone houses. At a distance of fifteen feet in front of these steps, and 150 feet from the top of the range of seats facing the plaza, two flat stones were discovered in 1895, lying side by side. They had been buried by the soil and rubbish to a depth of several inches, and rested on a layer of broken stone with which the area was paved. Each of these stones measures 2 feet 9 inches by 1 foot 5 inches, and each has a full-length figure carved in high relief on the upper side. (Reproduced from photographs on page 2.)

A fallen Stela E lies on the terrace to the west of the Great Plaza. Stela J stands by itself some distance to the east near Mound 3. To the north, in the centre of the elevated terrace, is a small pyramid (Mound 2) which has a depression in the top, and just west of it is a long, low mound with a similar depression.

Just north of Stela D, two steps lead to a narrow terrace, from which a flight of steps leads up the side of Mound 2. In the centre of the first step in this flight is a stone with eight glyphs in a row on its face. The centre of the next step above is occupied by a block slightly shorter than the first, with twenty-two glyphs carved in two rows on the face. (Plate VI. 1, which also shows Stela D.)

* Mound 5 is not numbered on the plan, Plate I., but is there shown west of Mound 9.

The Square Pyramid (1), rising on the terrace to the west of the plaza, was faced with stone in the form of steps consisting of single rows of stones, and seems to have risen nearly to a point having a square flat space on top. Some visitor has dug into the foundation, but apparently discovered nothing of interest. A stairway in which the steps are elevated slightly above the casing, ran up the centre of the east side. West of this mound is a broad flat terrace, which appears never to have been completed, and is in a very advanced state of ruin. Still farther west, on the plain, the three pyramidal structures, Nos. 54, 55, and 56, also present an unfinished appearance, and are very much destroyed. From the west side of No. 54 the front of a terrace formerly faced with stone runs to the west, and continues three or four hundred yards in a straight line to another group of buildings buried in a thicket. The difference of level is about four feet, and probably corresponds to a natural slope shaped artificially.

A few yards south is the irregular edge of another terrace, also shaped artificially to some extent, but not faced with stone; it extends eastward to Mound 51, which, with Mounds 48, 52, 53, and several smaller mounds, forms an interesting group arranged around the four sides of a court. No. 49 is a detached pyramid badly destroyed. No. 6 seems to be the remains of a long house with a number of chambers. No. 7 has some chambers on top reached from the plaza by a stairway, in front of which is the Sculpture O, an oblong piece, tapering toward the top. This was overlooked by Stephens, but is described, with drawings, by Maudslay. On the west side of this sculpture is the conventional design which Maudslay calls the plumed serpent. On the east side are two similar serpents intertwined; on the north end are a frog and a fish, and on the south end two human figures and a fish.

No. 8 has the appearance of a rough heap of building stone, from the steep sides of which trees are growing. Close by is the group (47) of stone houses, arranged on the four sides of a square court. The most northerly building of the group seems to have been considerably larger than the others. Group 46 presents the appearance of rounded heaps of rough stones.

Immediately south of the Main Structure the ground rises from the river bed in the form of a double terrace, running southward in a straight line. On the first elevation nearest the river there are no buildings. On the second, corresponding to the level of the plain, are many structures of different sizes and shapes, arranged for the most part in groups enclosing a court or square. Of these only a few have been explored.

At the southeast corner of the Main Structure, where the plain terminates in the terrace just described, is a group of buildings which comprises Nos. 30, 31, 32, 33, and 34. Of these only one (32) has been explored; its chambers, of which only the lower parts of the walls remained in position, were cleared

in 1892. A stairway leads from the court on the north side to a narrow landing in front of a thick wall in which a doorway gives access to a gallery which runs around the eastern, northern, and western sides. The southern side of the structure is broken away, and it is uncertain whether or not the gallery continued on that side. It was probably roofed, and it has a thick floor of cement. The inner chamber, separated from the gallery by thick walls, has a cement floor raised a foot above the floor of the gallery. Some of the blocks, forming the steps in the stairway already referred to, had been removed by some former visitor, disclosing a deep vault beneath.

The other members of this group seem to be oblong foundations of the pyramidal type, with casing in the form of steps, and apparently supported buildings of some kind.

Mound 36 was excavated in 1892. The following account is compiled from notes made by Mr. Owens: —

Before excavation the mound presented a very insignificant appearance. It was quite impossible to say exactly where the mound began and the general level of the Plaza ended; but approximately it was 130 feet long by 30 feet wide.

The slope of the mound rose very regularly from the sides and ends to the centre, where it was about $3\frac{1}{2}$ feet high; its surface was covered with large cobble-stones.

The excavations revealed pieces of cemented floors, laid above a foundation of water-worn pebbles. On these, low walls were found, which did not appear ever to have supported roofs. Upon these floors were piled what appeared to be a heap of refuse mingled with cobble-stones and earth; large quantities of potsherds, obsidian knives, some whole pots, arrow-points, and remains of human skeletons were scattered throughout the entire mound. Among the potsherds are specimens of every quality of Copan pottery, from the roughest undecorated ware to that of the finest quality and workmanship. Some of the fragments are beautiful, and show a high degree of artistic merit.

The skeletons were so nearly destroyed that only a few fragments could be preserved. Ash beds were found at different points, and in them many bones of deer and other animals, as well as a number of bone implements.

Some of the bodies seemed to have been thrown indiscriminately among the refuse, while in other cases some attention would seem to have been given to burial rites. Of the first three skeletons only slight traces were found. The following is a list of such as were fairly well preserved, or of especial interest, with a description of each, and the conditions under which it was found.

Skeleton No. 4. Found at a depth of 5 feet; lying on left side, facing east; feet south; knees doubled to chin; hands near head. Some of the teeth were filed, and could be removed only in fragments. Nothing of interest was found with it.

No. 5. Depth, 4.5 feet; on left side, facing south; skull crushed, portions fairly well preserved, and very thick. Two of the teeth were filed. Some fragments of what seemed to be a child's skull were found with it, together with a small painted vase.

No. 8. Badly disintegrated; one tooth has a setting of green jade; two have lost similar settings, and two others are filed.

No. 13. Only a few fragments of the skull and bones were preserved. By the skull was a rude earthenware vase, and between the jaws were found several small disk-like jadeite beads.

No. 16. Apparently placed in a sitting posture; the legs almost upright, and the skull crushed down upon the pelvis. Near by was a small vase of dark brown color.

No. 17. Depth, 4 feet; skull badly decomposed, one of the teeth, which are very large, has a setting of jadeite.

No. 19. Depth, 3.9 feet; head to the west, lying on right side; hands at the head; skeleton almost entirely disintegrated, and few teeth could be found. At the feet were portions of a child's skeleton. With the skeleton were found eight perfect vases and part of another. Beneath the bones were ashes and charcoal, in which were found a jadeite bead, some obsidian knives, and a piece of antler. Above the skull were two flat stones supported by two rude stone walls, running east and west, one at either side of the skeleton.

No. 20. Depth, 4 feet; found associated with a number of bones of deer, and a single earthenware vessel.

No. 21. Depth, 3 feet; head toward the east; lying on the back; arms folded over chest, and knees doubled up above chest. The skeleton lay on a bed of burnt clay, surrounded by a row of large river stones.

No. 24. Almost entirely disintegrated; was surrounded by a row of large stones. It seems to be the skeleton of a child. Close to it was found a single vase.

Nos. 25 and 26. Below the walls of the structure. The bones of these two skeletons were intermixed. Two of the teeth of No. 25 had settings of green jade, and the bones are very large; a single bowl was found associated with the bones, and a piece of silicified charcoal about 9 inches long, which before being broken was nearly cylindrical, and 7 or 8 inches in diameter.

No. 27. Depth, 3.7 feet; appears to be the skeleton of a child, much destroyed; with it was found an obsidian knife and a shell.

No. 28. Depth, 3.5 feet; lying on right side, and doubled up. A few teeth were saved, which were covered with tartar. Under the head was found a jadeite bead, and beside the skeleton were five earthenware vessels of different shapes; two of these were decorated.

No. 29. Depth, 5.5 feet beneath floor of structure; only portions of the larger bones and three molars remained. There was no apparent form of grave, and no objects of any kind were found associated.

No. 30. Depth, 4 feet. Child's skeleton, of which very little remained; no form of grave, and no associated objects.

No. 31. Depth, 4.9 feet; head toward the north and turned on right side; rest of skeleton on back; cranium almost entirely destroyed, but jaws in fairly good condition. Just below the lower jaw in front, where the neck would be, was found a large jadeite ornament, 4 inches long. It was pierced longitudinally, and lay as it would if suspended from the neck. Near the head was an earthenware bowl.

No. 32. Depth, 3 feet; fragmentary remains of a child's skeleton; two jadeite beads, a shell disk, and a number of small shell beads were found with it; no form of tomb.

No. 33. Depth, 4.2 feet; head toward the southeast; lay on left side with left hand under head; bones in a fair condition; no form of tomb.

No. 36. Depth, 5 feet; head toward the east; very little of the bones remained, but the teeth were in a fair condition; the two inner incisors (upper) filed and ornamented with little disks of jadeite set into cavities made in front, as in the case of others mentioned.

The group of unexplored mounds, comprising Nos. 37 to 40 inclusive, presents the appearance of large rough heaps of stones and debris. They probably represent buildings of the usual type with pyramidal foundation.

Immediately to the southeast of this last group is another group, consisting of Nos. 41, 43, 44, 45, and a few small mounds, which look like rounded heaps of water-worn pebbles. Of this group, No. 41 has been partly explored. When the outer walls had been cleared, the structure turned out to be a long, low building, with a number of small chambers, each having a separate entrance from a narrow platform, reached by a flight of three steps in the centre, running along the west side which faces the court. The northern chamber is divided from the rest of the house by a gallery which connects the platform in front with the smaller one at the back. None of the chambers have ever been cleared out. On the eastern side, which may be called the back, a platform occupies a little more than half the length at the southern end. It is terminated at the north by a wall, which abuts the building at right angles and runs to the east. To the south of the wall are two pits, about five feet deep, sunk beneath the level of the pavement and walled with stone. In these pits were found what appears to be the remains of fireplaces, and a large quantity of broken pottery. The largest of these pits was 32 by 40 feet. If they ever had walls above them, these must have been of some other material than stone.

Mound No. 43 shows distinctly the remains of a stone house above its pyramidal foundation, with slopes in the form of steps. A stairway leads from the court on the southern side. The character of the other mounds in the group is not so apparent.

Somewhat less than a mile from here, in a southerly direction, the river turns rather abruptly and flows to the west. The intervening plain, to within five hundred yards (approximately) of the river, is covered with the remains of stone houses, arranged for the most part in groups in a manner similar to those just described. Among these are found a number of sculptures, including portrait-like heads and grotesques. None of these mounds have been explored, and very little can be said about them. They continue in a westerly direction for more than a mile to the edge of the plain, but never approach any nearer the river.

To the northeast of the Main Structure the ground rises about two hundred yards from the river bank in the form of a terrace which, approximating the direction of the course of the river, continues some distance up the stream. The ground between this line and the river has no remains, but the higher ground is covered with ruins which have not been explored. To the northwest of the Plaza, extending as far as the foot-hills of the mountains, is a larger group of mounds buried in a dense thicket. To the west of the Main Structure is another large group, or number of groups, occupying almost all the plain between the Main Structure and the modern village of Copan, — a distance of about a mile and a half. Among these are to be seen many scattered fragments of sculpture, particularly in the vicinity of two mounds occupying central positions in their respective groups, and conspicuous for their great size.

At a distance of more than half a mile to the north, near the river, is another prominent group hidden in the thicket. One mound, standing at the southern end of a courtyard in which are several pieces of sculpture, is particularly noticeable.

Scattered remains are to be seen along the course of the river as far up as the modern village of Sante Rita, a distance of eight or nine miles. Among these different groups, and particularly numerous toward the extremities of the plain, are the remains of stone foundations, without any trace of superstructure. It seems probable that upon these stood wooden houses of which every trace has disappeared.

On the slopes of the foot-hills on the eastern side of the river are a number of ruined stone houses, and on the top of a table mountain, called Albonete, to the northeast, whence a fine view of the ruins is obtained, there are some scattered remains of stonework. On the slope of a mountain to the east, at a distance of 1.50 miles from the river, are the remains of a stone structure of some kind, and the fallen and broken Stela 12, with an inscription on each of its four sides. 2.75 miles to the west is a mountain peak commanding a splendid view of the whole valley; on its summit is Stela 10, fallen and broken; this is similar to the one on the east. A line joining these two stelæ passes very close to the southern slope of the Main Structure (see line indicated by arrows *a b* on plan), and bears N. 86° 46′ west (magnetic).*

The quarries from which the stone was taken for the monuments and buildings are in a ridge to the northwest. The rock is a trachyte, and outcrops along the ridge in abrupt ledges. Deep excavations are to be seen, and large quantities of chips and flakes are found, together with some quarried blocks. Several detached stelæ are found at different points of the valley. They are all fallen and broken, and much less elaborate and striking in appearance than those in the great Plaza.

So far no regular burying-place has been found at Copan, but a number of isolated tombs have been explored. Two were found just south of the Main Structure, under the surface of a level court (see plan), one under the steps of Mound 32, some in the level valley farther south, and others to the northeast and to the northwest. At different parts of the ruins, tombs were found under the steps of what would seem to be ruined houses.

Those found in the open plain were marked by scarcely perceptible elevations in the general level of the ground. In each case loose building stones were strewn around, but they had more the appearance of having been left there by the masons after the work was finished than of having formed any structure above the surface. The tombs are small chambers or vaults built of cut stone beneath the surface of the ground, and covered with slabs of stone laid across them. These latter are sometimes on a level with the ground, or at a slight elevation above it, and sometimes several feet below. There are usually several niches in the interior of the walls. The following account of these tombs, explored in 1892, is taken from reports of M. H. Saville and J. G. Owens: —

"Tomb 1, situated 90 feet south of the Main Structure, and about the same distance east from Mound 36, in an open court, consists of a large chamber, lying

* The magnetic declination at Copan was found to be 6° east.

approximately east and west, and measuring 5 feet in depth, 5½ feet in length, and 2 feet in width, with a smaller chamber running northward from its eastern end, measuring 3½ feet in length, 3 feet in width, and 3½ feet in height. The walls of both chambers were of cut stone, regularly laid. The slabs of stone forming the roof were about 1 foot below the surface of the pavement, which was broken, and one of the roof stones thus exposed had been removed at some previous time. The roof of Chamber 2 was 2 feet lower than the roof of Chamber 1, and the floor of Chamber 2 was 11 inches lower than the floor of Chamber 1. The whole vault was filled to within a few inches of the top with brown earth mixed with wood ashes and charcoal. In removing the earth the following objects were discovered: —

"The remains of two skeletons, of which only some of the teeth and a few fragments of the bones could be preserved. In one instance the four upper incisors were inlaid with little circular bits of jadeite, each fitted into a hole drilled in the front of the tooth. These jadeite ornaments are slightly rounded outward and highly polished. The two upper middle incisors were further modified by being filed on the inner corners. The left canine had a circular cavity drilled in the enamel in front, showing where it also had been ornamented like the incisors. An upper left lateral incisor found with the other skeleton had a similar decoration. (See page 32.)

"In different parts of the chambers, twelve earthen vessels of different shapes and sizes were encountered, most of them decorated with figures in different colors. One vase represents the head of a wolf, modelled with great accuracy, and exhibiting an extraordinary degree of artistic merit. (See page 48.) With these were found a number of shell ornaments and jadeite beads, a pottery whistle, bone needles, the upper jaw-bone of a peccary, the radius of a deer, and, most interesting of all, the upper portions of two skulls of the peccary, one of which, very well preserved, is beautifully carved on the outside with figures of men and animals and symbolical characters.

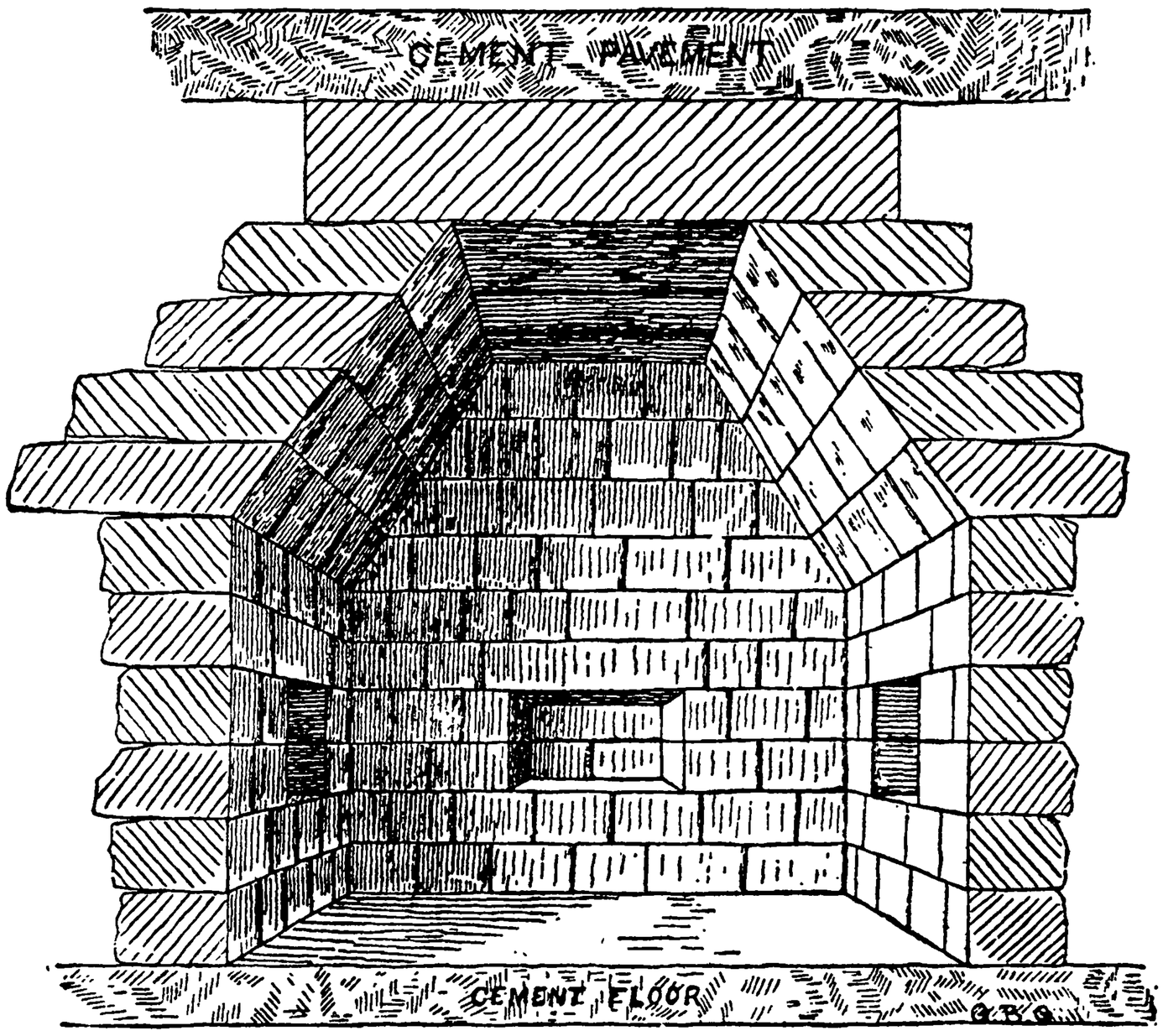


FIG. 2.— CROSS-SECTION OF TOMB 2. WIDTH INSIDE, 5 FEET.*

"Tomb 2 was found 27 feet west of Tomb 1. It was marked by a pile of loose building stones, probably the ruins of some structure built over it. The chamber lying east and west was 5½ feet in length and 2 feet in width at

* This is a good illustration of the characteristic arch of the ancient buildings in Central America and Yucatan. The drawing also illustrates in a general way the construction of the rooms in the buildings of Copan, and the form of the arch which supported the roof. In a few instances tiers of the bevel-faced blocks of stone, forming a portion of the arch, have been found in place above the side walls of a building.

the top, and 5 feet between the vertical walls below; the height is 5.2 feet (Fig. 2 cross section). It was filled to within a few inches of the ceiling with dry hard packed earth, very hard to remove. Ashes and some bits of charcoal were found near the top. On the floor were the crumbling remains of a skeleton. Four earthenware vessels, each painted with figures, some jadeite and shell ornaments and animal bones were found.

"Tomb 3 is under the steps of a ruined house, at a short distance to the north of the great Plaza. An old excavation had brought to light a chamber running east and west. A roof-stone, 4 feet 9 inches long and 1 foot 4 inches wide, had been removed, but no attempt had been made to clear the chamber of the clay that nearly filled it. The top of the vault was 1½ feet above the level of the ground in front of the steps. Portions of the earth had been greatly disturbed by ants. The floor of the vault is at three different levels; at the eastern end was a section 4¼ feet long, the cemented floor of which was 3⅓ feet from the roof. The middle section, 4 feet in length, width 3⅓ feet, was 11 inches lower; like the first it was covered with mortar cement. The western section was 3½ feet long, and was 7 inches narrower than the other two, the wall on the southern side being built further in. This section was 1½ feet above the middle section, and was not cemented. The walls at this part were rougher and not so regularly constructed. The side walls of the vault converged somewhat toward the top, and the roof consisted of seven slabs, averaging 1½ feet wide, 1 foot 2 inches in height, and 3 feet in length. In the northern side of the vault, about 5 inches above the floor, and near the eastern end, was a niche 1 foot in length, 10 inches in height, and 18 inches deep. Another niche in the centre of the southern wall, 1 foot 9 inches above the floor, was 10 inches high, 15 inches deep, and 1 foot in breadth. Nothing of interest was found in either. In this vault were found the usual objects of pottery, obsidian, shell and jade, a few fragments of animal bones, a piece of gnawed antler, a horse's tooth,* and fragments of another. A human skeleton, which lay on the floor in the eastern end, was in an advanced state of decay. The left femur had been gnawed by some animal. The depression in the middle of the floor of the vault had been filled up with clay to a level with the eastern section.

"Tomb 4 was found about midway between the Main Structure and the modern village of Copan, about 100 yards north of the road. There is a mound, 37 by 32 feet, built on the slope of one of the foot-hills. On the eastern side had once been a flight of steps, 15 feet wide, ornamented with several stones carved in a conventional pattern. The land where this mound is situated has been used for planting, and an excavation, made by some native in the top of the mound, revealed a large flat stone, which proved to be one of the roof stones of a vault, 2 feet 3 inches in width, 3 feet 5 inches in length, and 2 feet in height. Nothing was found in this chamber, but the northern wall was open and gave access to a larger chamber, the floor of which was 1 foot 4 inches below the floor of the first. This chamber was 4 feet in length from east to west, and

* These teeth of a horse had been broken from the jaw, and they may have fallen into the tomb or have been carried there by rodents during the interval since it was first opened and its exploration by Mr. Saville. The gnawing of bones in the tomb and the ants' nest show that there has been considerable disturbance of materials. We must, however, remember that these teeth may possibly have a bearing upon the existence of an American horse in prehistoric time. In this connection, see Cope, note on *Equus fraternus*, Amer. Phil. Soc., vol. xxxiv. p. 466, 1895.

2 feet 9 inches in width. The roof was built in the form of the horizontal arch, the capstone being 4 feet 9 inches above the floor, which was made of rough stones.

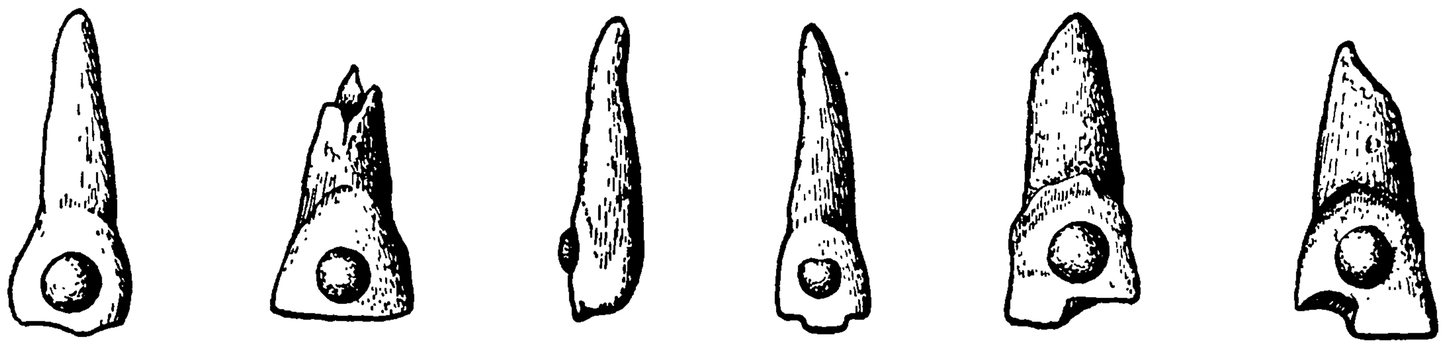
"In this chamber were found four decorated earthenware vases. In the northern end were the remains of a skeleton badly decayed; of the teeth, only the crowns remained. At either side of the head was found a circular ear ornament of green jadeite, about one inch in diameter, with red pigment adhering to the inner surface. Four jadeite beads were found near the head, and a piece of jadeite, about an inch in length, on which was carved a human face. Some charcoal and burnt earth were mixed with the clay which filled the vault.

"At a few paces to the southeast of the mound in which this tomb was found, is another mound of the same dimensions. An excavation made into the centre, at some former time, showed a ruined chamber about 22 feet in length; the roof and most of the walls had fallen in. Over the fallen roof-stones was found the skeleton of a young person, above which some rough stones had been placed. The skeleton lay on the right side, with the knees doubled up to the chin. Nothing was found with the skeleton. On clearing out the chamber nothing was found on the stone floor over which the roof had fallen.

"Tomb 6 is about half a mile from the main structure, in a northeasterly direction, on the lower foot-hills, in an old tobacco field. It was indicated by three large flat stones lying side by side, their upper surfaces about 9 inches above the general level of the ground; they measured 5 feet in length by $2\frac{1}{2}$ feet by 1 foot, and formed the roof of a chamber 6.2 feet in length, 2.5 feet in width, and 3 feet in depth. It lay almost due north and south, was filled with clay, and was divided by a row of stones across the middle of the floor into two sections. In the southern part were found the crumbling remains of a skeleton with a few rude pieces of pottery. In the northern section a portion of another skeleton was discovered lying on the stone floor. Near by were fragments of the skull of a third skeleton. A piece of pottery, $13\frac{1}{2}$ inches long, in the form of a perforated ladle, the end of the handle representing the head of a serpent, was found near the skeleton. This, in all probability, is an incense burner.

"Tomb 7 was discovered at a distance of about 20 rods west of Tomb 6. The chamber lay nearly east and west, and was filled with clay, in which only a few fragments of human and other bones were found, together with a small metate, or rubbing stone, and a plain stone object 3 inches thick by $1\frac{1}{2}$ by 8 inches, with three projections like legs.

"Tomb 10 lies 40 rods south of the main structure and 8 rods from the river, in a level area. The usual roof stones projecting above the surface showed its presence. In removing the clay with which it was filled, four beautiful jars or vases of exquisite workmanship were encountered at a depth of $2\frac{1}{2}$ feet below the surface, and 2 feet from the floor of the vault, together with a small stone celt, an obsidian flake knife, a ladle-shaped piece of pottery similar to that found in Tomb 6. With these were removed a few crumbling fragments of the skeleton of a child."



HUMAN TEETH FILED AND ORNAMENTED WITH JADEITE. (See page 30.)

THE MONOLITHIC MONUMENTS.

THE sculptured columns or tall monolithic monuments of Copan, to which the name of Stelæ has been applied by Maudslay and others, and is adopted here for the sake of uniformity, have not only furnished the chief attraction to travellers, but have given the ruins their principal fame and their distinctive character. Of the twenty-three of these monuments now known, fifteen are situated in or about the great Plaza, and in this group are included the largest and most elaborate; six of their number are standing, the rest are overthrown and broken. The average height from the ground does not exceed twelve feet; the average breadth is about three feet, with a thickness slightly less than the width.

All of this Plaza group of stelæ are indicated by Maudslay on his plan; but some were half buried beneath debris and rubbish, and were cleared for the first time by the Peabody Museum Expedition. A complete set of photographs and moulds were made of these as well as of the better-known stelæ. Associated with each stela, and usually from ten to fifteen feet from its base, is a smaller sculpture, called for convenience of description an altar. These may be said in general to be monolithic, although in some cases associated smaller parts, such as the head and legs of an animal, are carved on separate pieces.

The following is Palacio's description of what he saw of these monuments: —

"In this square are six great statues, three representing men covered with mosaic work and with garters round their legs, their weapons covered with ornaments; two of the others are of women with long robes and head-dress in the Roman style. The remaining statue is of a bishop, who appears to hold in his hand a box or small coffer. They seem to have been idols, for in front of each of them is a large stone with a small basin and a channel cut in it where they executed the victim and the blood flowed off." *

The name "idols" is used to-day by the natives living in the vicinity of the ruins when speaking of these monuments of their predecessors, concerning which they appear to have lost all tradition. So little has been accomplished since Palacio wrote, in the way of interpreting the monuments, that the

* A letter from Diego Garcia de Palacio to King Philip II. of Spain, dated Guatemala, 8th March, 1576. Maudslay's translation. See Appendix for this letter in full.

description which can be given to-day is scarcely more satisfactory than his, written more than three centuries ago, and must be at best but an enumeration of details in the design.

The following is Maudslay's description: —

"The monolithic monuments at Copan are cut from a somewhat decomposed trachyte rock; for convenience of description, they may be divided into Stelæ and Altars.

"On the front of each Stela,* and in some cases on both front and back, is a representation of an elaborately decorated human figure. On the back (when it is not occupied by a figure), and in some instances on both back and sides, is a hieroglyphic inscription. The design is sometimes completed by the addition of scroll-work derived from the form of the feathered serpent, to which is added a number of small human and grotesque figures.

"The ornamentation throughout the sculptures is no doubt to a great extent symbolical, and in the decoration of the Stelæ more attention appears to have been given to the display of such ornamentation than to securing correct proportion in the representation of the principal figure; but that the errors in proportion did not arise from the want of knowledge is clearly shown by the far superior treatment of some of the smaller figures on the same monuments.

"Almost the whole of the ornamental carving decorating the Stelæ at Copan is derived from the following subjects: The feathered serpent, grotesque human and animal figures and masks, feathers and feather-work, fish, bands and plaits made of some pliable material such as leather or bark-cloth, and loops and ties made from a softer material. Geometrical patterns, except such as are formed by the folds and plaits of a material with straight parallel edges, are not to be found (unless circles and dots can be so considered). Foliations and other vegetable forms are (with possibly one exception) entirely absent from the designs.

"The dress and ornaments of the human figures represented on the Stelæ, although affording infinite variety in detail, are not only similar in general design on all the monuments at Copan, but on all monuments of the same class throughout Central America.

"Until the inscriptions are deciphered, there is little to help us in determining whether the figures on the Stelæ are intended to be portraits of chieftains or priests in ceremonial costume, or whether they are fanciful representations of heroes or deities. The strong individuality of many of the figures gives force to the former view; but, on the other hand, there are two of the figures which cannot be included in the category of monumental portraits, as their faces are covered by grotesque masks. The great exaggeration of the personal adornments would be more likely to occur in imaginative figures than in portraits; but a possible explanation of these exaggerations may be learned from some of the sculptures themselves. The carving on a wooden lintel taken from a temple at Tikal (part of which is figured on Plate XXIII.) represents a central human figure standing under the arched body of a great feathered serpent, on a sort of stepped platform which rests on a framework of poles. This

* This cannot be said to apply to Stela J, which has a highly conventional face on its western side but no representation of a figure.

suggests the probability that images made from some lighter material than stone may have been kept in the temples, and used on the occasion of religious processions. And it may be that the exaggerated adornments of the figures on the Stelæ were copied from the elaborate ornaments with which in all countries and in all ages it has been customary to adorn such processional figures.

"There is not at Copan any certain evidence of the use of textile fabrics, but it is probable that the waist-cloths and turban-like head-dresses of some of the figures were made from woven material.

"Considerable difficulty is met with in attempting to trace the development of the designs used in the ornamentation. firstly, because, with the exception of feathers and the skins of jaguars, we are not certain of the kind of material from which the ornaments and dress were originally made, and can form no idea of how far the design may have been influenced by the nature of the material worked in; and secondly, because the original designs may have been considerably modified when transferred to stone by workmen who had probably no better tools than chips and flakes of obsidian." — MAUDSLAY, pages 33–34.

The stelæ were oriented as follows: A, B, E, 4, face east; F, H, I, J, M, P, 6, face west; C and 5 face east and west, being double-faced; D faces south; N and 3 face north and south.

Each stela is supported upon a base or pedestal, sometimes on a level with the surrounding pavement, and sometimes several feet below. This base consists of a flat slab of stone from 4 to 6 feet square, and about 1 foot thick. In four instances of fallen stelæ, vaults have been found underneath the support of the monument. These vaults consist of two shafts crossing at right angles under the centre, their ends lying in the directions of the four cardinal points. They are built on several large slabs, which serve as a floor and as a foundation. They are constructed of squared stone, laid without mortar, and are very strong and well made. Above the pedestal the monument is usually supported by stonework, laid against its sides.

The vault under Stela M (Fig. 3) was opened in January, 1895. The ends had not been closed, and the clay thrown against it had made its way in, filling it up to within a few inches of the top. The base of the monument (which had fallen) was on a level with the surrounding pavement, which came up against it on all sides, sealing completely the entrances to the vault below. The monument was supported on its base by an oblong block of stone, placed against it on each side. The dimensions of the vault are: length of east and west shaft, 9 feet 8 inches; width, 1 foot; depth, 2 feet. The other shaft has very nearly the same dimensions as this. Considerable care was taken to determine as exactly as possible the direction of the shafts; one was found to bear twenty minutes west of the true north, and the other is at right angles to it. In this vault were found thirty earthenware vessels, of various grades and styles of workmanship. Some of the coarser kind were to a great extent disintegrated; others of a finer

quality were perfect, and several of these were decorated with figures painted in different colors. A small jar was filled with black sulphide of mercury, and covered with a shell (*Spondylus calcifer*). A few rough bits of jadeite and some fragments of stalactites were also found.

The pedestal of Stela C (Fig. 4) is three feet below the pavement; the vault underneath it (Fig. 5) is much the same as the one just described, but is closed at each end by a block of stone; the north, south, and west arms widen towards the outer end; the east arm is shorter, is the same width throughout, and is closed differently. In this vault were found only a few pieces of rough pottery.

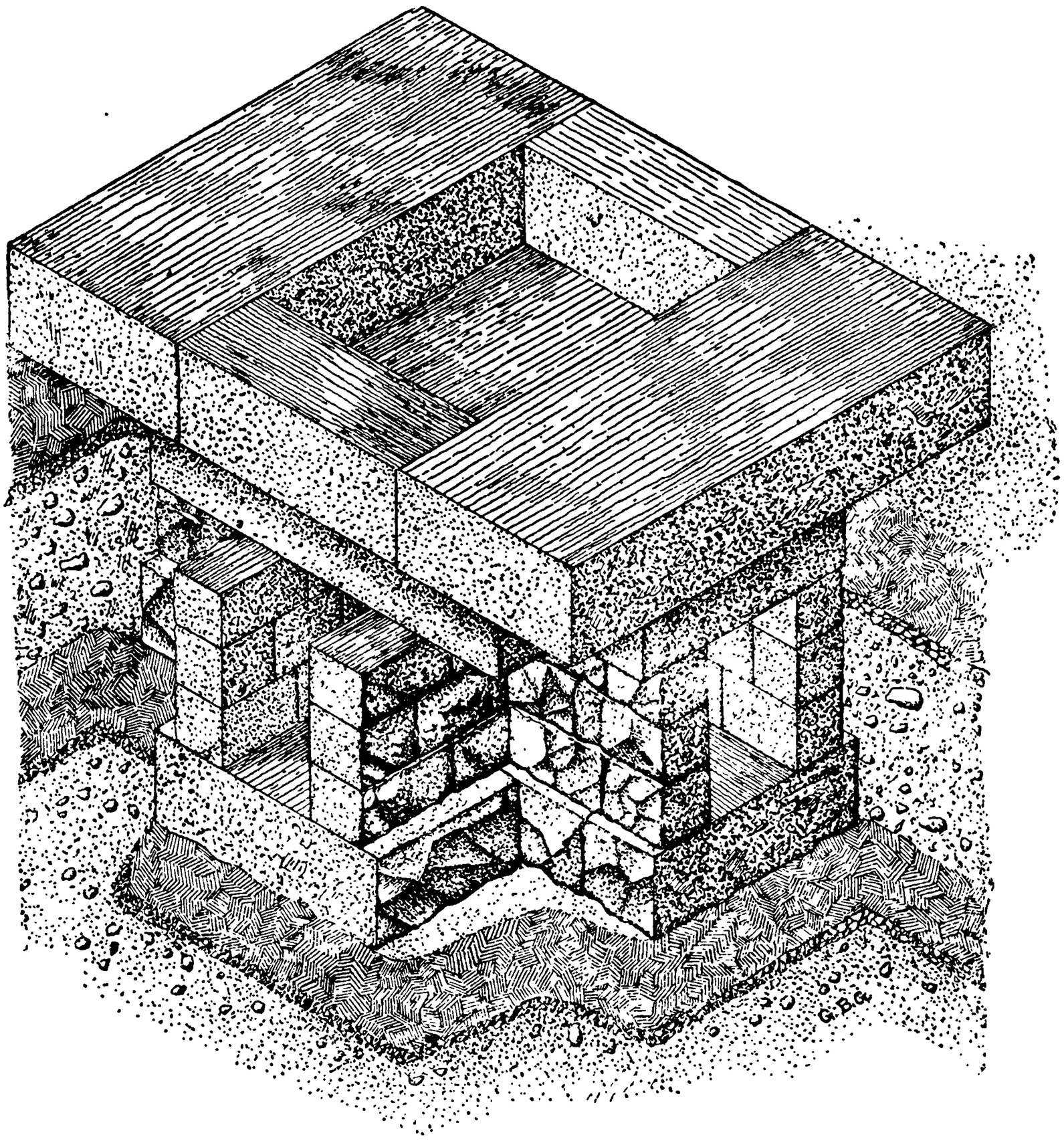


FIG. 3. — VAULT UNDER STELA M. Isometric Projection.

In front of Stela I a similar vault was found, containing several vases and jars of a very fine quality, painted with figures.

No vault was found associated with Stela 3; the pedestal rested on three layers of narrow oblong stones, under which was a pocket of pigments of different colors; in this were found four jadeite ornaments, very nicely cut and polished; each is pierced longitudinally by a round hole through which a string could be passed for suspending the object.

Excavations revealed the base of fallen Stela 1 in place on line of second step of stairway forming the western slope of Mound 9. From the vault

beneath were removed five rude earthenware vessels, fragments of stalactites, shells of the *Spondylus calcifer*, a large jadeite bead, and a quantity of cinnabar. At the foot of the stairway stands a circular altar broken nearly in halves and resting upon blocks of stone. A drawing by Mr. Gordon showing this altar and the fallen stela restored in place is given in Fig. 6.

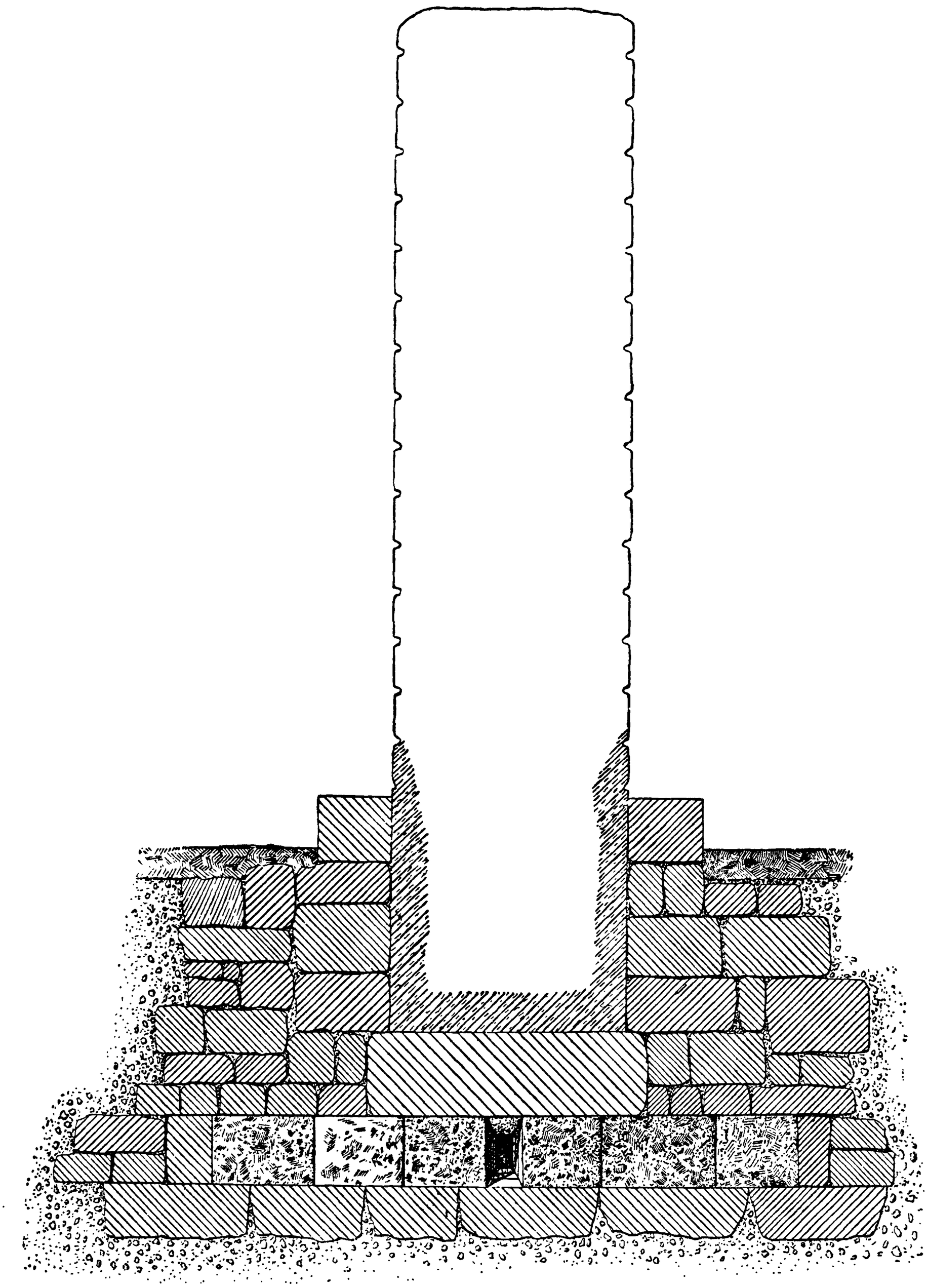


FIG. 4. — CROSS-SECTION OF STELA C, SHOWING VAULT AND STONEWORK AT BASE.
Scale 1 inch = 3 feet.

Outside the principal ruin shown on the plan (Plate I.) seven stelæ are known, including the two on the mountains to the east and west.

Stela 6 is in the bush, several rods to the north of the path leading from the ruins to the modern village. It had fallen, but was in a fairly

good state of preservation; it was raised to its former position by Owens and Saville in 1891, when it was moulded and photographed for the first time. The four sides of this stela are shown on Plate VII.

Stela 7, which lies in the bush to the west of the modern village, is fallen and broken. It was moulded and photographed.in 1893. The face, which consists of a full-length figure, is very much broken, and no mould was made of it. The other three sides are covered with hieroglyphs.

Stela 8 was found by Mr. Owens in 1893, lying in the bush to the northwest of the modern village. It seems to have stood upright, supported on either side by two other stones of an equal size with it, but lying flat.

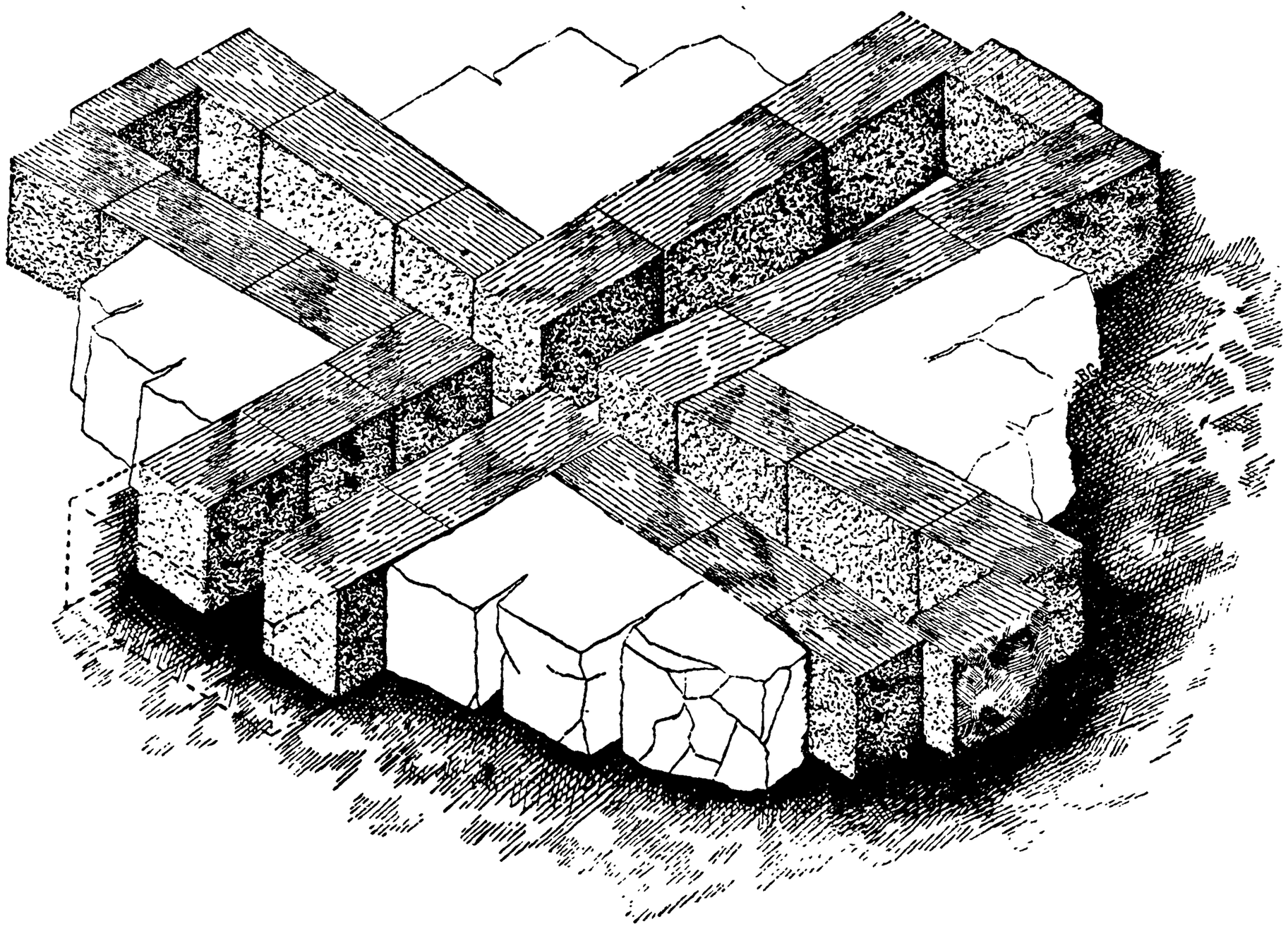


FIG. 5. — VAULT UNDER STELA C. Isometric projection. Scale 1 inch = 3 feet.

One of these (9) had originally hieroglyphs on all four sides, — two of these sides being well preserved, while the others are almost totally destroyed. The same is true of 8.

An excavation was made by Owens beneath the place where these were found, but it revealed nothing except a few rough stone beads. Moulds were made of both stones.

Stela 5 stood near Stela 6, but is fallen and broken in many pieces; it had a full-length figure on either side, and in front of each was an altar with an inscription, now almost totally destroyed.

A small cylindrical column, dug up in 1892 in the passage to the east side of Pyramid 16, and called Stela 11, has on one side a full-length figure, with the face turned in profile. The marked manner in which the forehead recedes amounts to deformity; the nose is large and aquiline; the

teeth and lips projecting, and the chin bearded. A large double plume attached to the headdress extends behind the figure, and a winged scroll derived from the head of the "plumed serpent" extends in front, another above, and a third at the side of the head. This figure and the associated symbolism occupy three-fourths of the surface of the stone; the other fourth is covered with a hieroglyphic inscription (Plate VIII.).

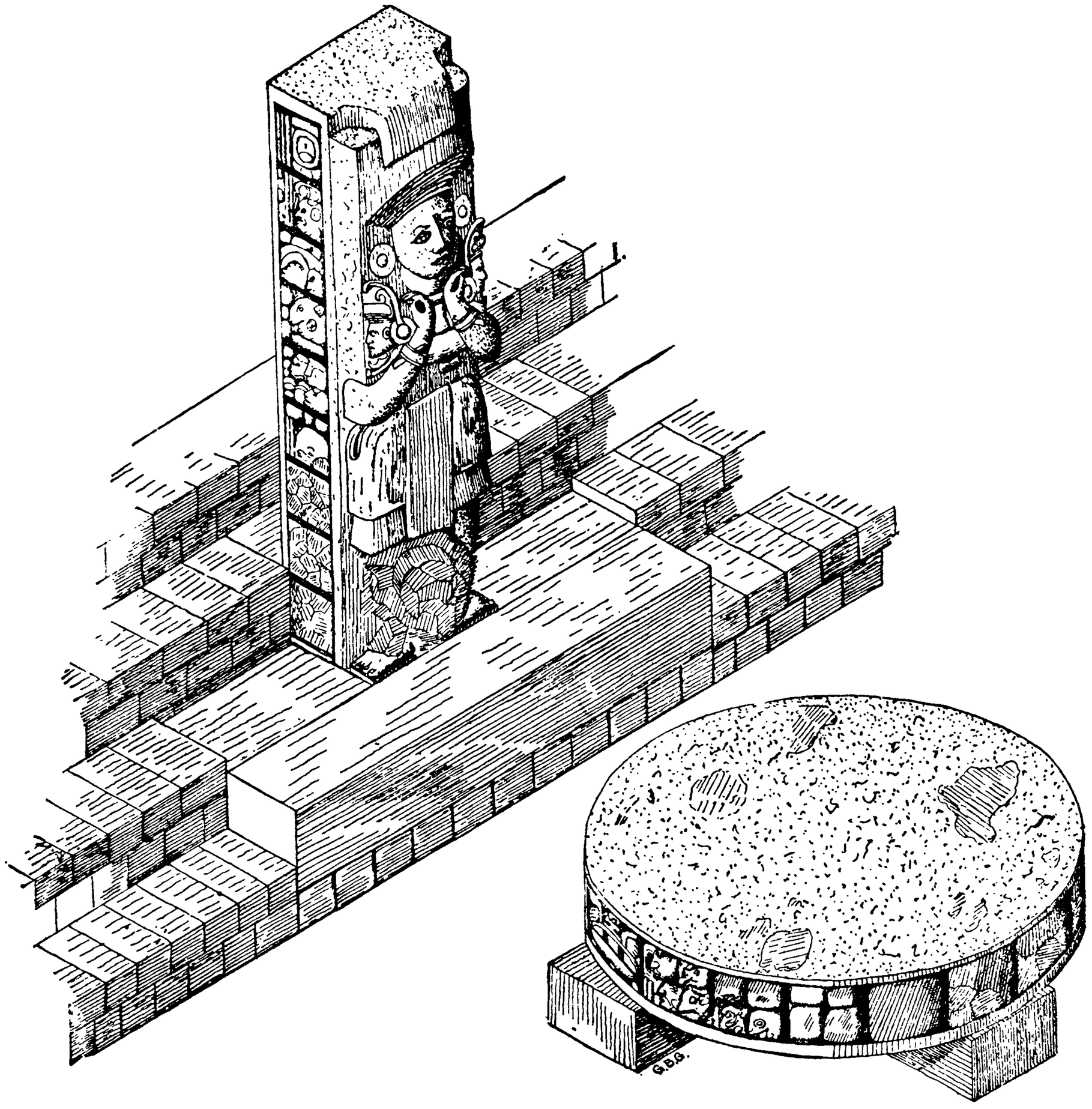


FIG. 6. — STELA 1, AND ALTAR (restored), showing position of Stela in Stairway of Mound 9.

The second class of monoliths, called altars, take two characteristic forms. The most conspicuous form represents in each case some fanciful and grotesque animal, or else each side of the altar presents a grotesque face after some conventional type. The decoration is usually very elaborate; but in some cases the design is quite simple, as in Fig. 7, an altar lying to the west of Stela C. The body resembles a turtle, although the lines do not correspond in direction to those on a turtle's back, but run diagonally. The edge is almost a perfect circle, 7 feet in diameter; the under side is flat, the top

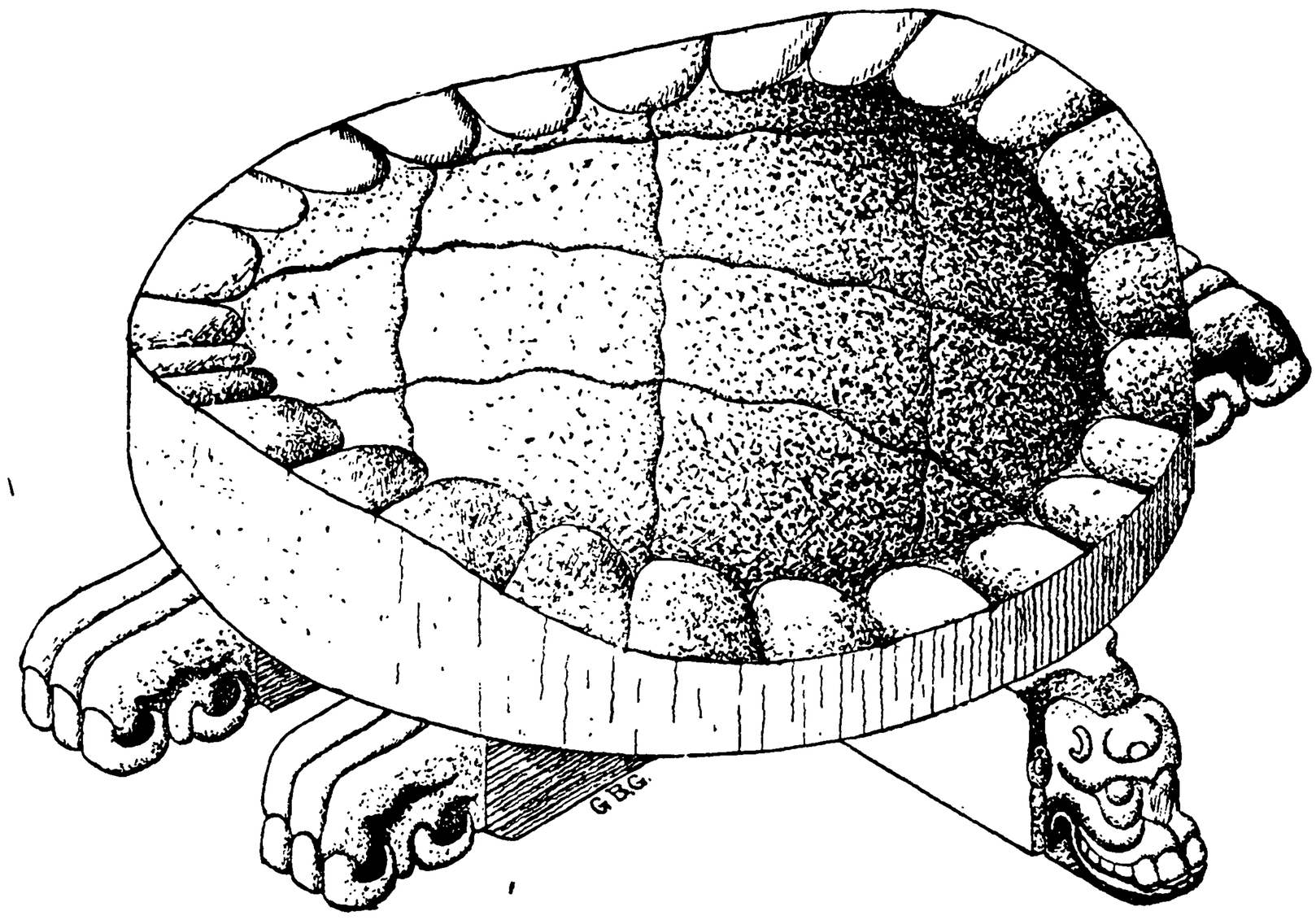


FIG. 7. — ALTAR OF STELA C (restored).

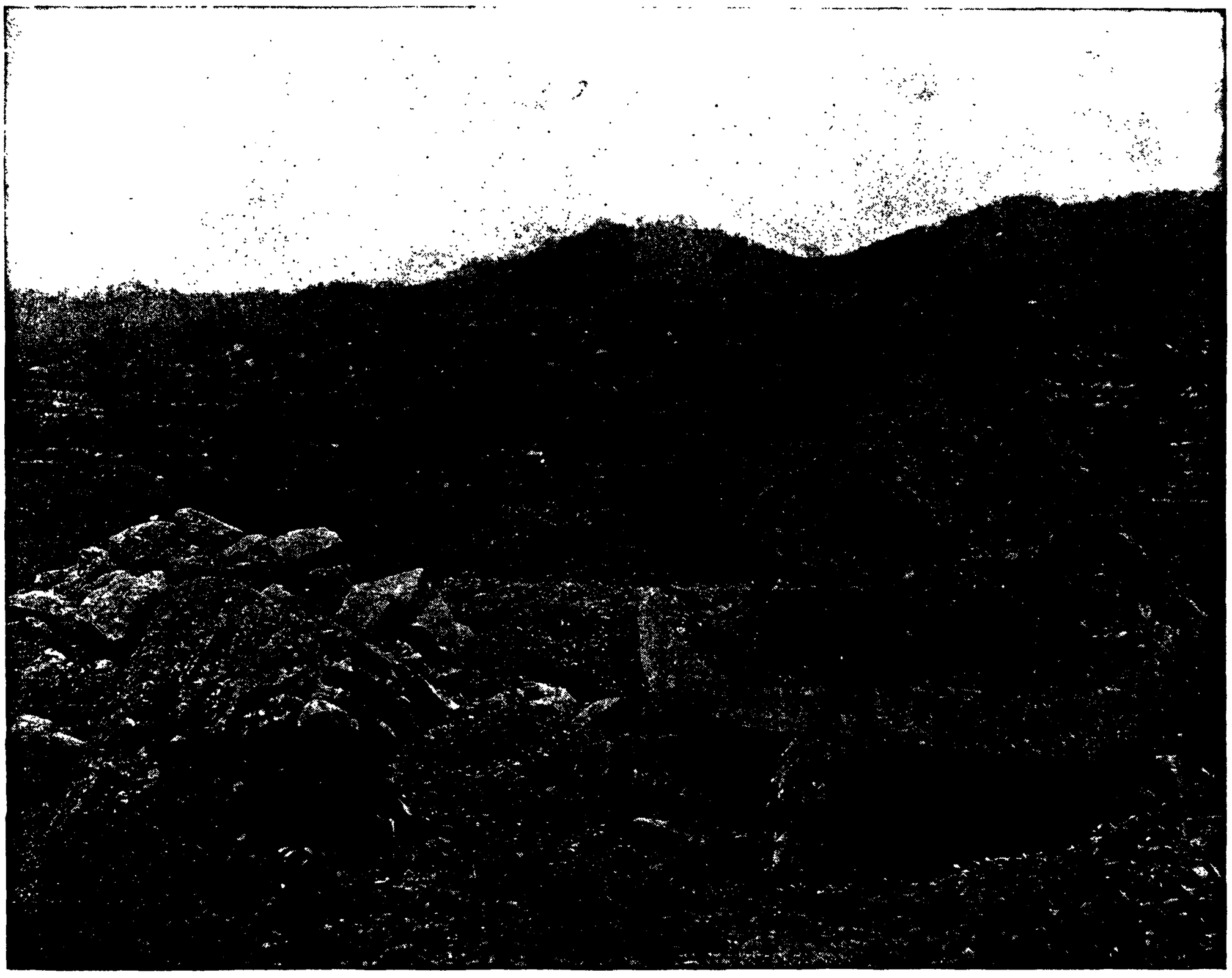


FIG. 8. — ALTAR OF STELA C, WITH FALLEN STELA BEHIND IT.

rounded towards the centre, and raised at both sides over the legs. The head and claws are cut from separate pieces of stone, the former being the usual conventional Death's head, while the claws are unfamiliar. It faces the west, but near the eastern side some fragments of a grotesque head were noticed, which in all probability formed a second head on the animal, facing towards the stela. Fig. 7 is from a drawing by Mr. Gordon showing the altar in detail with the parts restored. Fig. 8 is a reproduction of a photograph showing the altar with the fallen and broken stela east of it.

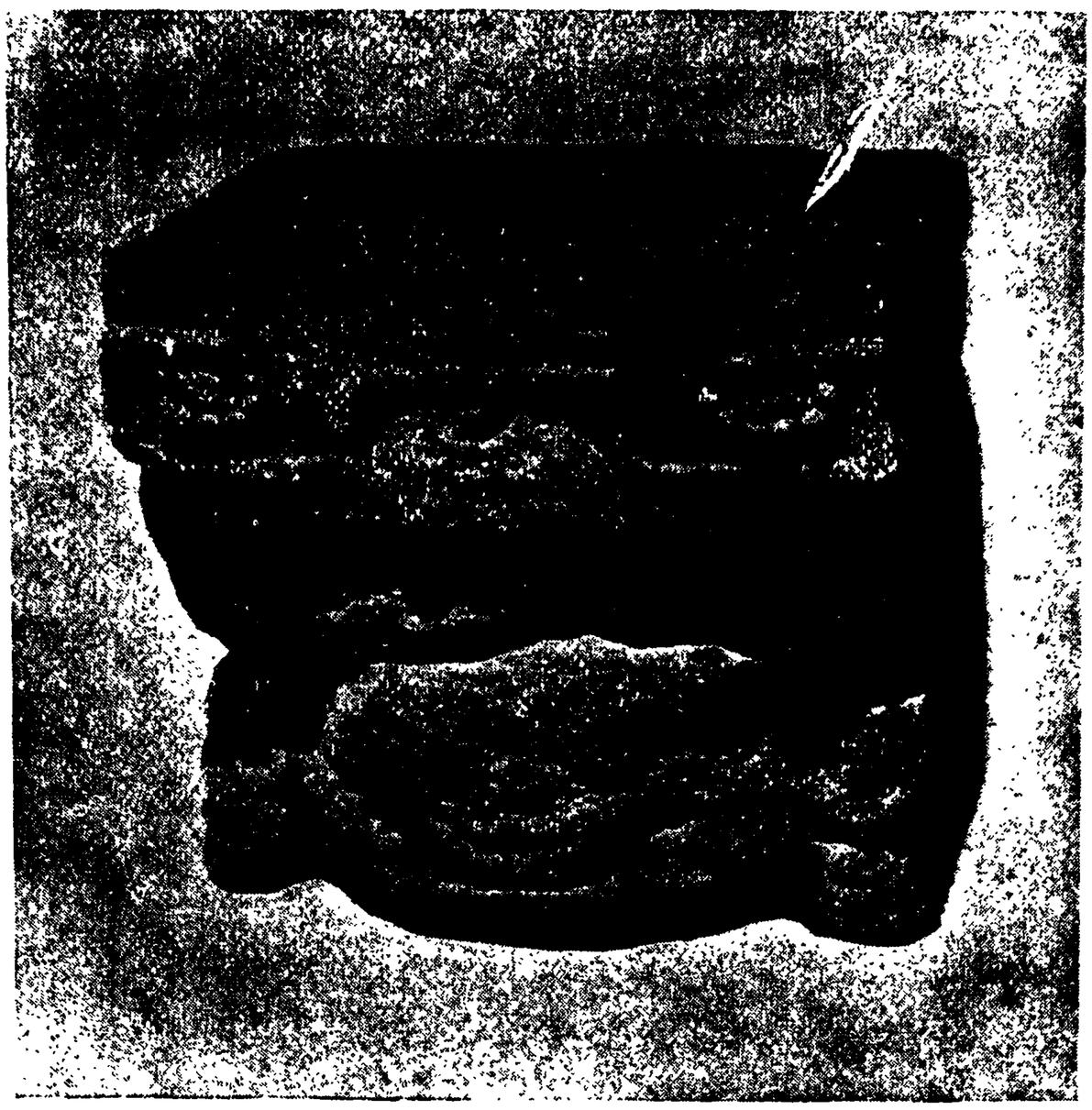


FIG. 9. — FRONT OF SCULPTURE Z.

The other form of altar is a flat circular stone, sometimes as much as 7 feet in diameter; the top is plain, but the cylindrical edge has one or more rows of glyphs running around it (Fig. 6).

There is still another class of monoliths which have also been designated as altars, and sometimes as tables. They are square or oblong blocks of stone with flat tops, and seldom exceed two feet in height; they are usually carved on the four sides, and sometimes on top, either with an inscription or some other design. Most of these have been described by Maudslay.

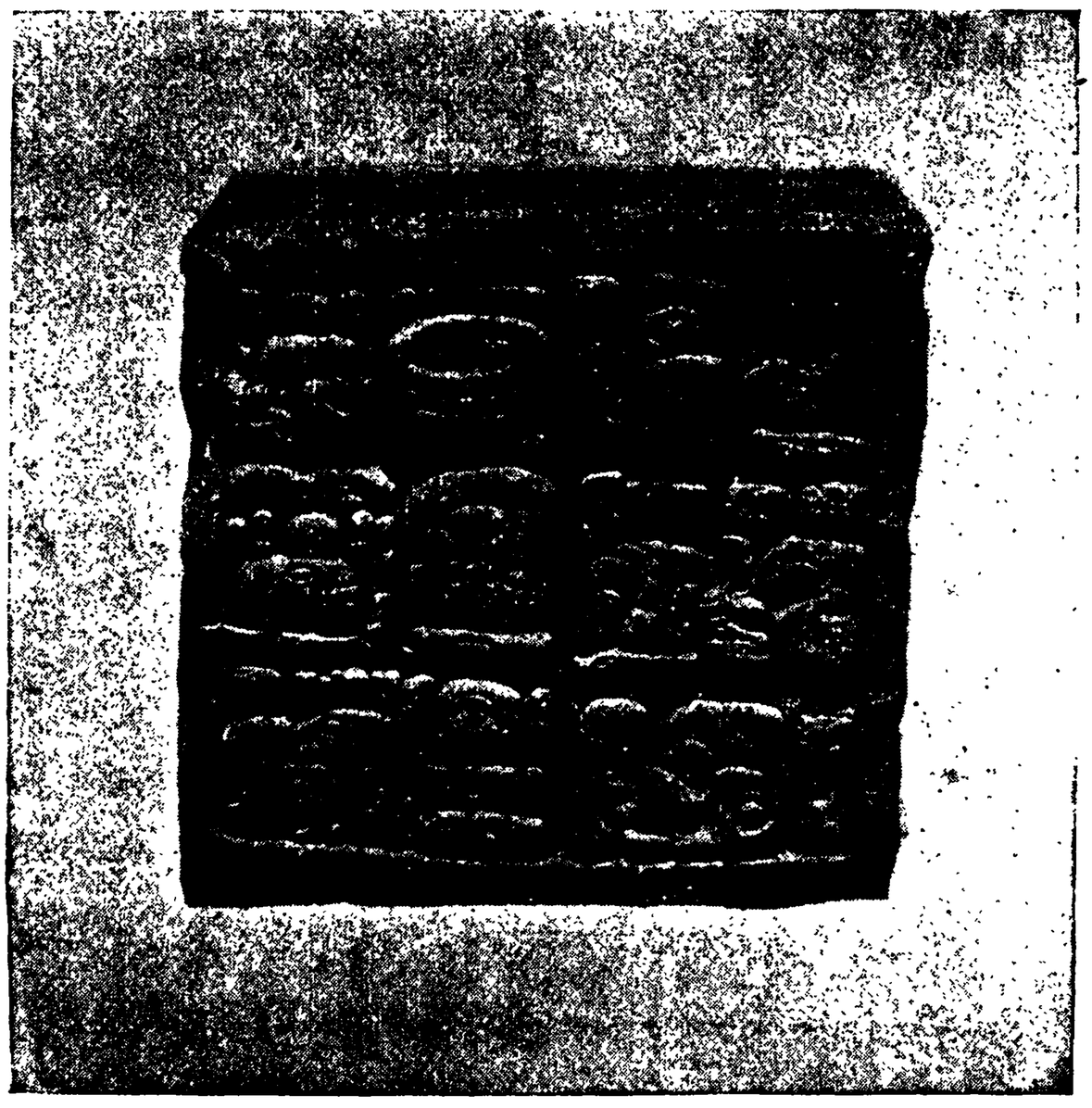


FIG. 10 — BACK OF SCULPTURE Z.

Altar L, mentioned on page 20, is 3.7 feet square and 2.6 feet high; on one side is a design in medium relief representing two seated human figures with a vertical row of glyphs between them. A drawing of this side is given by Maudslay on Plate 73; but he makes no mention of the opposite side, which is more

weather-worn, but retains the outlines of a similar design only partially executed. The other two sides and the top are plain, which is unusual; and it is probable that the sides at least were to be carved.

FIG. 11. — SIDE OF SCULPTURE Z.

Somewhat resembling these altars, are several sculptures, of which Z, discovered in April, 1893, upon elevation between the Eastern and Western courts, is $2\frac{1}{2}$ feet high; the top, which is plain, measures 18 × 22 inches. The front (Fig. 9) is a grotesque face; the back (Fig. 10) and sides (Figs. 11, 12) are covered with glyphs.

Sculpture Y was dug up in the Plaza, near Stela 4, in 1894. It was entirely buried, and seems to have been placed in its underground position to support the stela. The design of this sculpture seems to represent a square bundle tied with flat bands. One band, passing across the top and down the ends, divides the stone lengthwise; another similar band divides it crosswise, and two others parallel to this encircle it near either end. Each of the latter, at the point where it crosses the longitudinal band on top, is tied in a knot. On either of the longer edges of the stone a band, running lengthwise, is tied in a knot at the centre; behind this band appear two figures wearing masks and facing each other; the right hand of each figure is raised and extended toward the other; on one of these sides a dragon's head appears in the design. On either of the shorter edges is an inscription divided into groups of four glyphs by the band that passes down the centre.

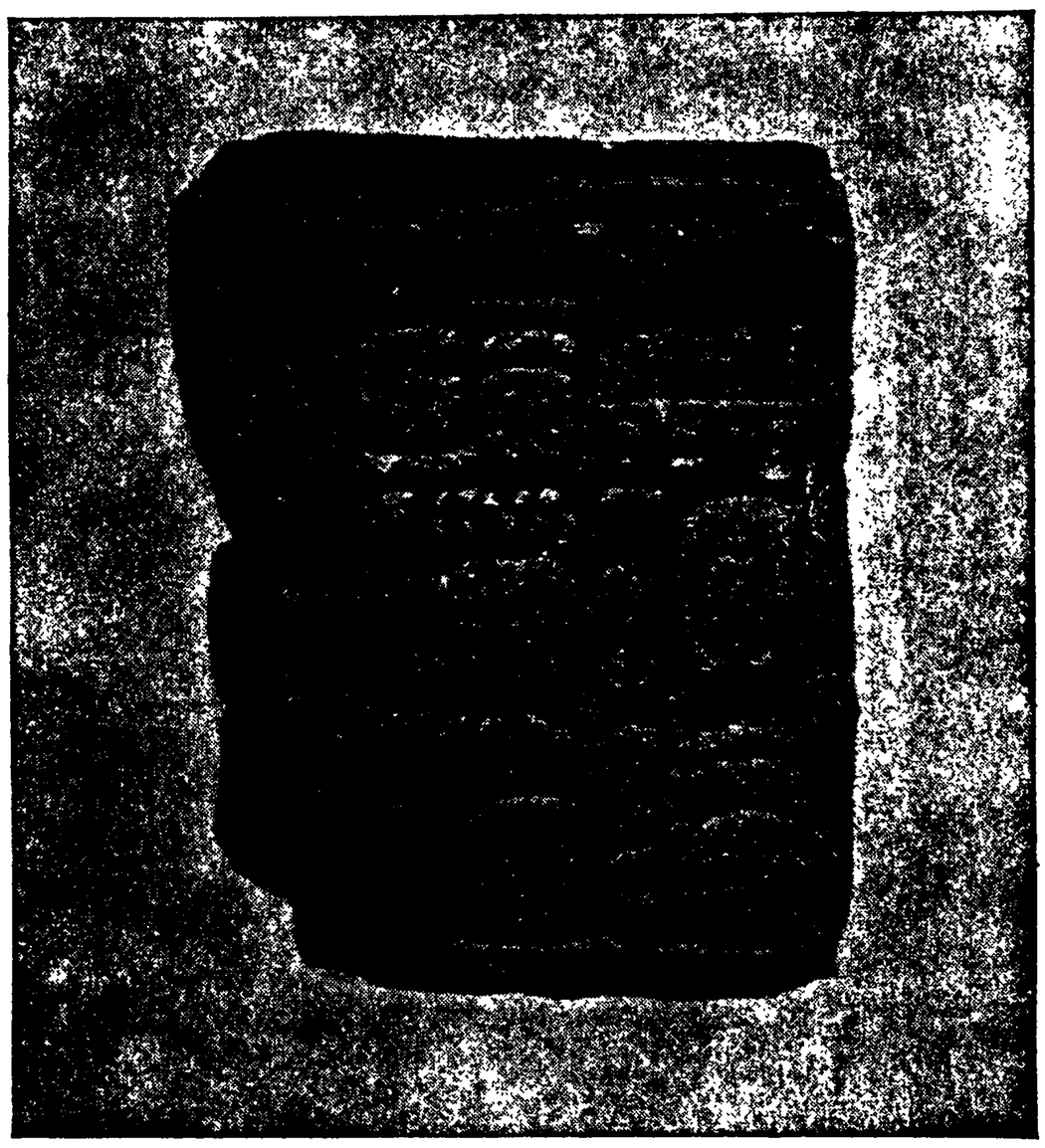


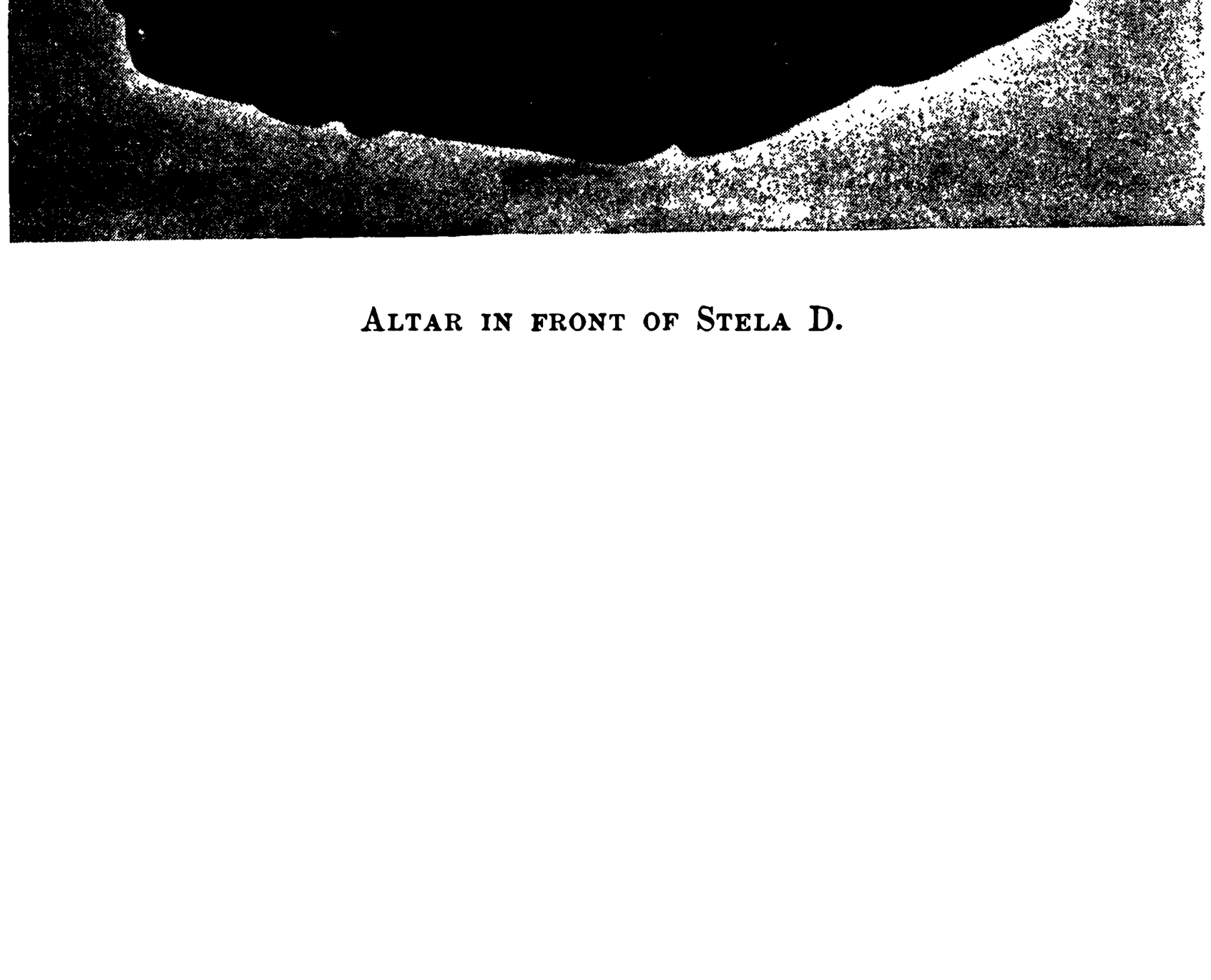
FIG. 12. — SIDE OF SCULPTURE Z.

Sculpture X was discovered in 1895 near the fallen Stela 5, of which it had formed the pedestal. The design is precisely the same as that of Y. This sculpture was also found beneath the pavement.

These two sculptures differ from those previously known at Copan; the relief is very low, the character of the sculpture is peculiar, and the design new. The stone itself seems older than that of any of the sculptures already known; it is more decomposed and readier to crumble. Both were buried not by accident, but by the people who set up the monuments with which they were found associated, and it would seem that they were consigned to these comparatively insignificant uses, when the use for which they were originally designed was no longer understood or appreciated.

Either they were obsolete relics of a former people or period, when these later monuments were being set up, or they were condemned as imperfect or undesirable sculptures.

The first theory seems the more plausible from the fact that nothing like them is found where it could possibly have been an object of use or ornament in the later days of the city's history.



ALTAR IN FRONT OF STELA D.

APPENDIX.

COLLECTION OF RARE AND ORIGINAL DOCUMENTS AND RELATIONS CONCERNING THE DISCOVERY AND CONQUEST OF AMERICA. CHIEFLY FROM THE SPANISH ARCHIVES.

PUBLISHED IN THE ORIGINAL, BY E. G. SQUIER, NEW YORK, 1860.

Carta dirijida al Rey de España, por el Licenciado Dr. Don Diego Garcia de Palacio, Oydor de la Real Audiencia de Guatemala; Año 1576.

RUINAS DE COPAN.

CERCA del dicho lugar como van á la ciudad de San Pedro, en el primer lugar de la provincia de Honduras, que se llama Copan, estan unas ruinas i vestijios de gran poblacion i de sobervios edificios, i tales que parece que en ningun tiempo pudo haver, en tan barbaro injenio como tienen los naturales de aquella provincia, edificio de tanta arte i suntuosidad; es ribera de un hermoso rio, i en unos campos bien situados i estendidos, tierra de mediano temple, harta de fertilidad, é de mucha caza é pesca.

En las ruinas dichas, hai montes que parecen haver sido fechos á manos, i en ellos, muchas cosas de notar. Antes de llegar á ellos, está señal de paredes gruesas i una piedra grandisima en figura de aguila, i fecho en su pecho un quadro de largo de una vara, i en el ciertas letras que no se sabe que sea.

Llegados á las ruinas, está otra piedra en figura de gigante; dicen los Indios antiguas que era la guarda de aquel Santuario; entrando en el se halló una cruz de piedra de tres palmos de alto, con un brazo quebrado.

Mas adelante van ciertas ruinas i algunas piedras en ellas labradas con harto primor; i está una estatua grande de mas que quatro varas de alto, labrada como un obispo vestido de pontifical, con su mitra bien labrada i anillos en las manos. Junto á ella está una plaza muy bien fecha con sus gradas á la forma que escriben del Coliseo Romano, i por algunas partes tiene ochenta gradas, enlosada i labrada por cierto en partes de mui buena piedra é con harto primor; están en ella seis estatuas grandisimas, las tres de hombres armados á lo mosaico con ligagambas, é sembradas muchas labores por las armas, i las otras dos de mugeres con buen ropaje largo i tocaduras á lo Romano; la otra es de obispo que parece tener en las manos un bulto como cofrecito. Devian de ser idolos, porque delante de cada una dellas havia una piedra grande que tenia fecha una pileta con su sumidero donde degollavan los sacrificados i corria la sangre; tambien tenian sendas cazolejas do sacrificavan con sus sahumeries, i en medio de la plaza havia otro pila mayor que parece de bautizar, donde

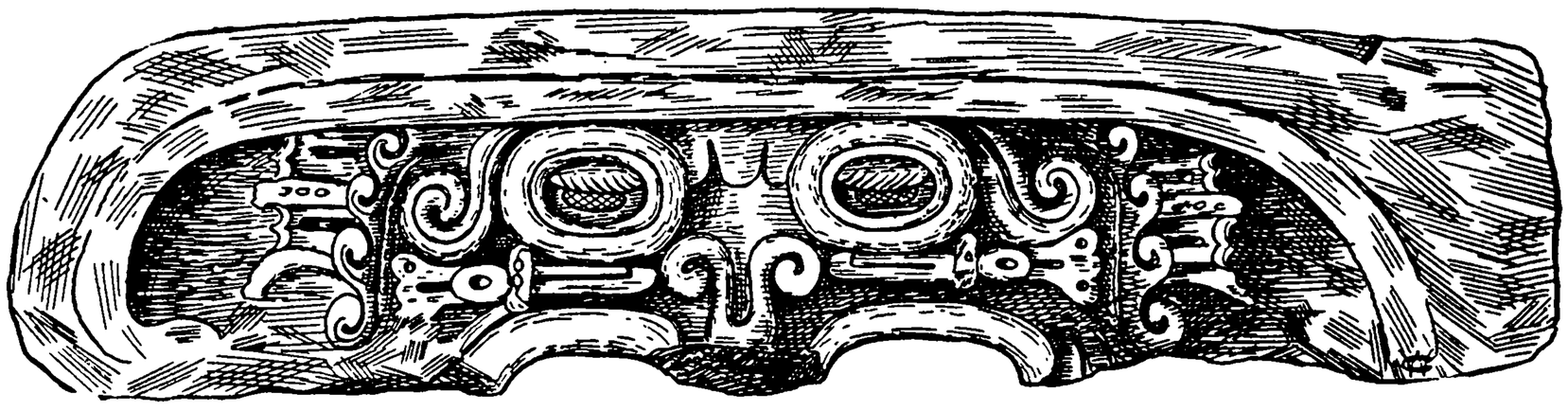
ansimesmo devian de hazer en comun sus sacrificios. Pasada esta plaza se sube por muchas gradas á un promontorio alto que devia de ser donde hacian sus *mitotes* i rictos; parece fue fecho i labrado con mucha curiosidad, porque aun siempre se hallan alli piedras muy bien labradas. A un lado deste edificio parece una torre ó terrapleno alto que cae sobre el rio, que por alli pasa; hase caido i derrumbado un gran pedazo, i en lo caido se descubrieron dos cuevas debajo del dicho edificio muy largas i angostas, i fecho con harta curiosidad; no he podido averiguar de que servian é para que se hicieron; hay una escalera que baja hasta el rio por muchas gradas. Sin lo dicho hay muchas cosas que demuestran haver havido alli gran poder i concurso de hombres, é pulicia, i mediana arte en la obra de aquellas figuras i edificios. He procurado con el cuidado posible saber por la memoria derivada de los antiguos, que gente vivió alli é que saben é oyeron de sus antepasados, i no he hallado libros de sus antigüedades, ni creo que en todo este districto hay mas que uno, que yo tengo; dicen que antiguamente havia venido alli i fecho aquellos edificios un gran señor de la provincia de Yucatan, i que al cabo de algunos años se bolvió á su tierra é lo dejó solo i despoblado, i esto parece que de las patrañas que cuentan es la mas cierta, porque por la memoria dicha parece que antiguamente gente de Yucatan conquistó i subjetó las provincias de Ayajal, Lacandon, Verapaz, i la tierra de Chiquimula, i esta de Copan, i ansi la lengua Apay que aqui hablan, corre i se entiende en Yucatan i las provincias dichas. I ansimesmo parece quel arte de los dichos edificios es como lo que hallaron en otras los Españoles que primeramente descubrieron la de Yucatan é Tabasco, donde huvo figuras de obispos, hombres armados, i cruzes, i pues en ninguna parte se ha hallado tal, si no es en los lugares dichos: parece que se puede creer que fueron de una nacion los que hicieron lo uno i lo otro.

De los lugares dichos me volvi á Guatemala, porque con indisposiciones de algunos del Audiencia fue necessario para el despacho de los negocios, i ansi se mando lo hiciese, pase por lugares bien frios e fragosos donde ay los mayores i mas hermosos pinos i robles, cedros, cipreses, i otros muchos arboles que ay en todas estas provincias.

Estas son las cosas que en el discurso de la visita que hize por orden de V. M. me parecieron dignas de alguna consideracion; no pongo entre ellas la orden i particularidades de su gentilidad por ser muchas i requerir gran escriptura, aunque pudiera por tener hechas memoria de las mas dellas, siempre que V. M. me ocupáre en su servicio procuraré en lo general i en semejantes especialidades de manera que se entienda, que a lo menos tengo buen deseo.

Nuestro Señor la C. i R. persona de V. M. guarde muchos años con augmento de mayores estados i con felicimos sucesos! Desta Vuestra Ciudad de Guatemala, á 8 de Marzo de 1570 [1576] años. C. R. M. humilde i leal criado, que besa las reales manos á V. M.

EL LICENCIADO PALACIO.



SCULPTURE ON STEP OF HIEROGLYPHIC STAIRWAY. (See page 22.)

[TRANSLATION.]

RUINS OF COPAN.

NEAR here, on the road to the city of San Pedro, in the first town within the province of Honduras, called Copan, are certain ruins and vestiges of a great population and of superb edifices, of such skill that it appears they could never have been built by a people as rude as the natives of that province. They are found on the banks of a beautiful river, in an extensive and well-chosen plain, temperate in climate, fertile, and abounding in fish and game.

Among the ruins are trees which appear to have been planted by the hands of men,* as well as many other remarkable things. Before reaching them, we find remains of heavy walls, and a great eagle in stone, having on its breast a tablet a yard square, covered with unknown characters.

Arriving at the ruins, we find another stone in the form of a giant, which the ancient Indians aver was the guardian of this sanctuary. Entering the ruins, we find a cross of stone, three palms in height, with one of the arms broken off. Further on we encounter ruined edifices, and among them a number of stones sculptured with much skill; also a great statue more than four yards in height, which resembles a bishop in his pontifical robes with a well-wrought mitre on his head, and rings on his fingers. Near this is a well-built plaza or square, with steps or grades, which, from description, resemble those of the Coliseum at Rome. In some places it has eighty steps, paved, and made in part at least of fine stones, well worked. In this square are six great statues; three representing men with armor in mosaic, and garters around their legs. Their arms are loaded with ornaments. Two are of women, with long robes, and with head-dresses in the Roman style. The remaining statue is of a bishop, who holds in his hands a packet resembling a box or small trunk. It seems that these statues were idols; for in front of each of them is a large stone, in which is carved a small reservoir, with its groove, in which the blood was collected from the sacrifices. We find also the little altars on which the perfumes were burned before them. In the centre of the square is a large basin of stone, which appears to have served for baptism; and in which, also, sacrifices may have been made in common. After passing this square, we ascend by a great number of steps to a high place, which appears to have been devoted to *mitotes* and other ceremonies; it seems to have been constructed with the greatest care, for throughout we find the stones excellently well worked. On one side of this structure is a tower or terrace, very high, and dominating the river which flows at its base. Here a large piece of the wall has fallen, exposing the entrance of two caves or passages, extending under the structure, very long and narrow, and well built. I was not able to discover for what they served, or why they were constructed. There is here a grand stairway, descending, by a great number of steps, to the river. Besides these things there are many others which prove that here was

* Maudslay translates, "Mounds that appear to have been built by the hand of man," which is correct.

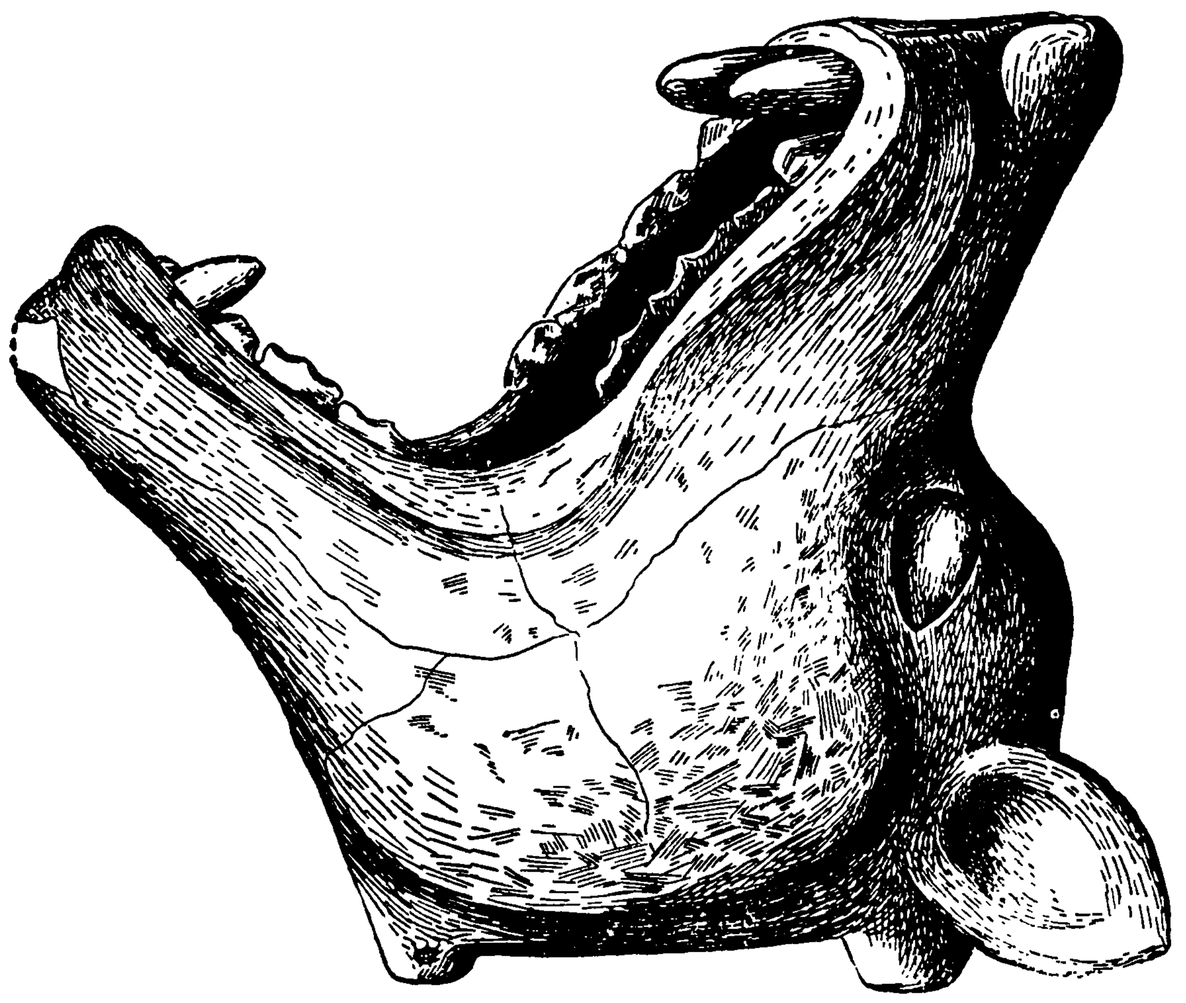
formerly the seat of a great power and a great population, civilized, and considerably advanced in the arts, as is shown in the various figures and buildings. I endeavored, with all possible care, to ascertain from the Indians, through the traditions derived from the ancients, what people lived here, and what they knew or had heard from their ancestors concerning them. But they have no books relating to their antiquities, nor do I believe that in all this district there is more than one, which I possess. They say that in ancient times there came from Yucatan a great lord, who built these edifices, but at the end of some years returned to his native country, leaving them entirely deserted. And this is what appears most likely, for tradition says that the people of Yucatan anciently conquered the provinces of Ayajal, Lacandon, Verapaz, Chiquimula, and Copan; and it is certain that the *Apay* language, which is spoken here, is current and understood in Yucatan and the aforesaid provinces. It appears, also, that these edifices are like those which the first Spaniards discovered in Yucatan and Tobasco, where there were figures of bishops and of armed men, as well as of crosses. And as such things are found nowhere, except in the aforesaid places, it may well be believed that the builders of all were of the same origin.

From the aforesaid places I returned to Guatemala, because some of the members of the Audiencia had fallen sick, and it was necessary for the despatch of business. In returning, I passed through places cold and rough, where there are the largest and most beautiful pines and oaks, cedars, cypresses, and many other varieties of trees, which are to be found in all these provinces.

These are the most remarkable things which I discovered, in the visit which I made, under Your Majesty's orders. I have not recounted all that I learned of the Indians during the time of their infidelity, because it would make volumes; but I can give what I have retained in my memory, if Your Majesty thinks it useful, in such a manner, at least, as to prove my good-will.

May Our Lord preserve Your Royal and Catholic person for many years, with augmentation of dominion, and with happy deeds! From Your city of Guatemala, March 8th, 1576. Your Royal Catholic Majesty's humble and loyal servant,

THE LICENTIATE PALACIO.



TERRA-COTTA VASE ($\frac{1}{3}$) FROM TOMB 1. (See page 30.)

Oversized

Foldout

Oversized Foldout

PLATE II.

FIG. 1. Main structure from eastern side of Copan River, looking north-northwest, showing underground walls of faced stone exposed by the undermining action of the river floods. Mound 16 is at the left, and the summit of Mound 20 is seen at the right of the centre of the illustration. (Pages 9–10.)

FIG. 2. Northeastern slope of Main Structure, looking southwest, showing, near centre of illustration, the elevations upon which stand Temples 21, 21a, and 22. To the right is Mound 26, and to the left is Mound 20 overhanging the river front. The stone wall in the foreground was built by the Peabody Museum Honduras Expedition for the protection of the ruins.

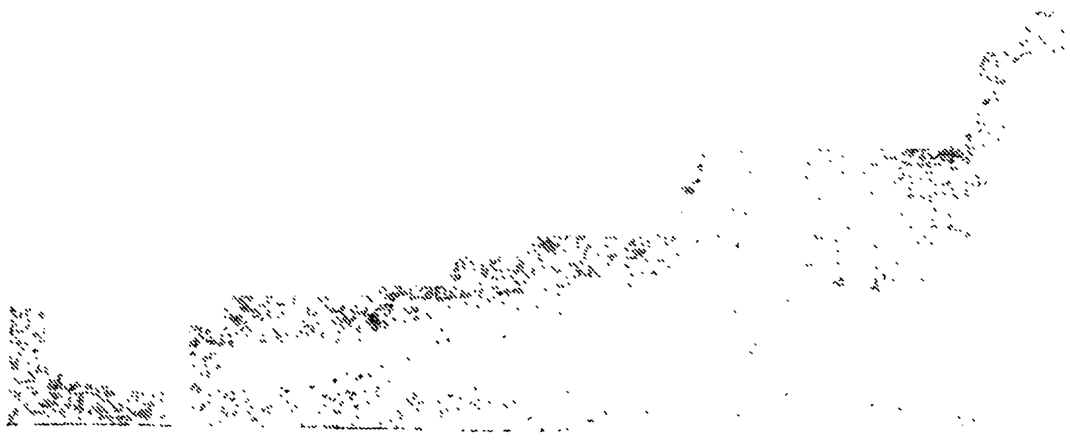
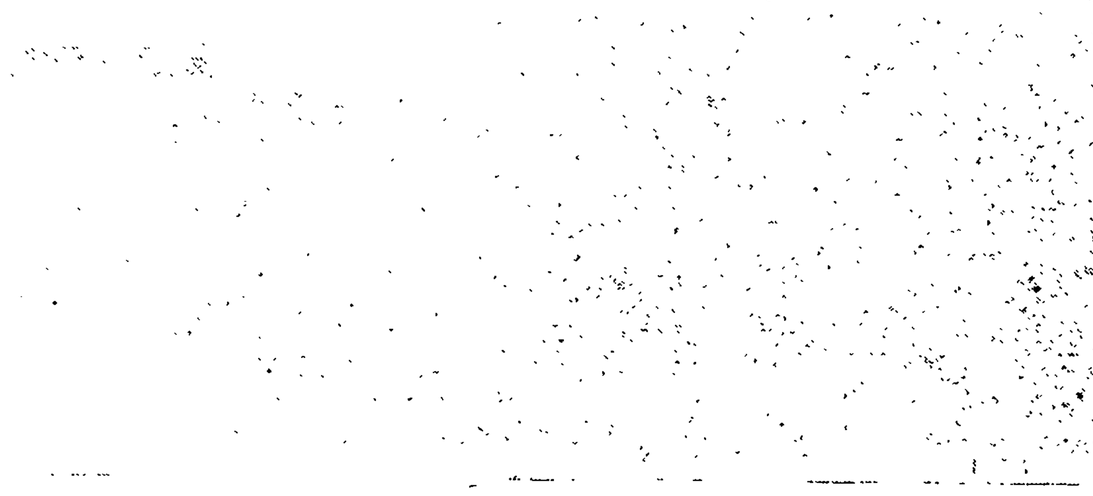


FIG. 1.



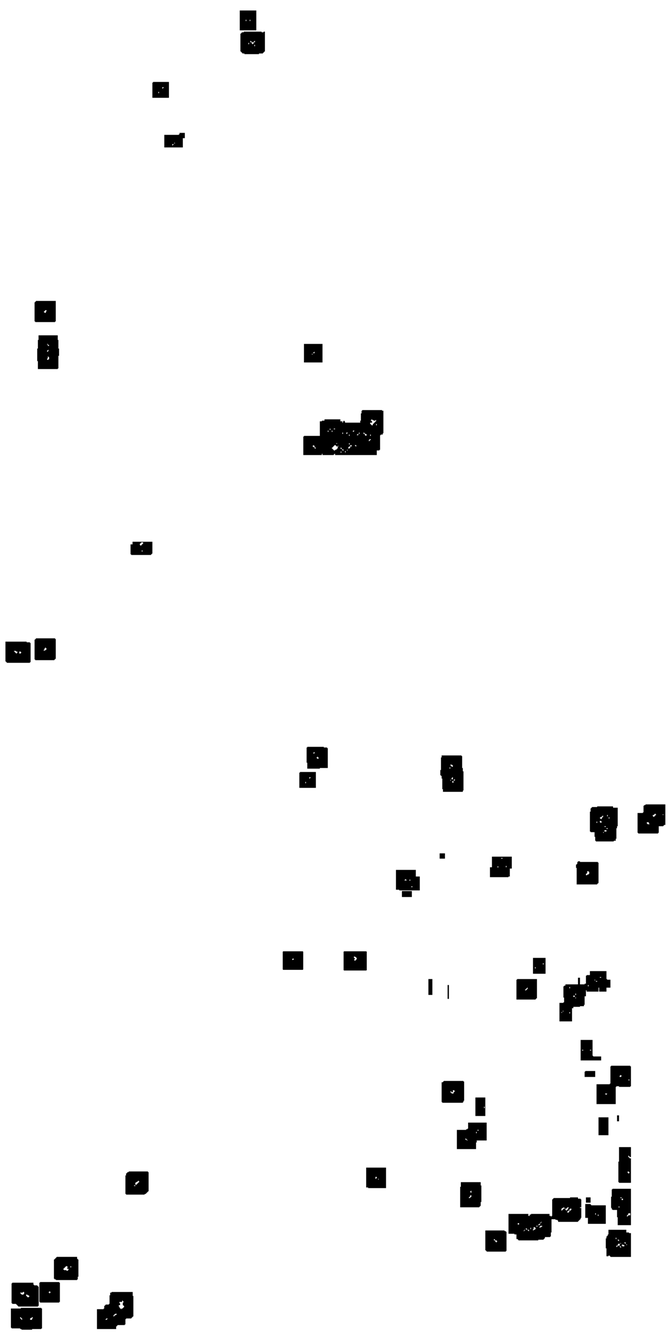


FIG. 2.

PLATE III.

FIG. 1. From summit of Mound 26, looking south. Pyramid 16 is in the middle distance with walls of buildings (50) against its northern base. (Pages 13–15.)

FIG. 2. From summit of Pyramid 16, looking northeast. A portion of Eastern Court is seen with the northern flight of steps leading up to Temples 21, 21a, and 22. The northern end of the eastern flight of steps is covered by the débris from Mound 20 at the extreme right. The Jaguar steps (23) are at the left in the foreground. Mound 21 with its ruined temple is shown at the right above the flight of steps. Mound 22 at the left. Temple 21a occupies the space between 21 and 22. (Pages 17–19. See also Plate II. 2, and Plate IV. 1.)

FIG. 1.

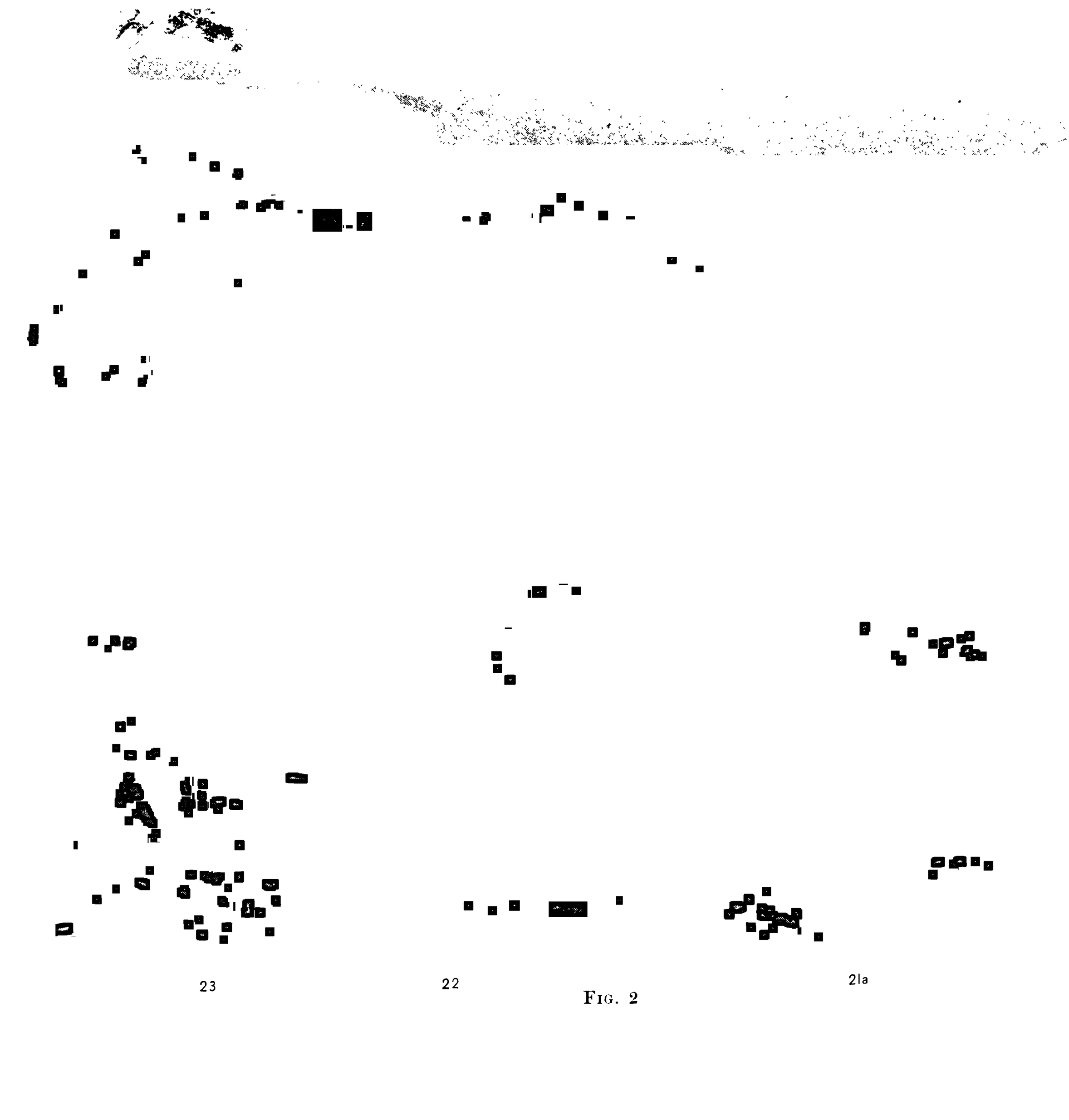


FIG. 2

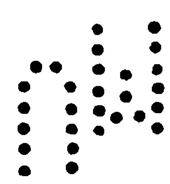
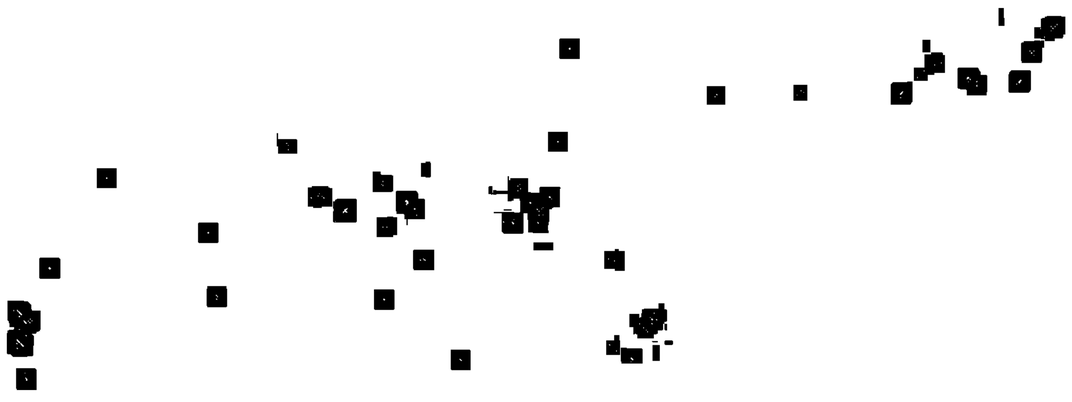


PLATE IV.

FIG. 1. From summit of Mound 20, looking northwest. Remains of building (21a) between Mounds 21 and 22. Mound 22 with ruined temple is at the left, and a part of the western side of Mound 21 at the right. A portion of the great Plaza appears on the right in the middle distance. (Page 18. See also Plate II. 2, and Plate III. 2.)

FIG. 2. From northern base of Mound 20, looking northeast. Small chamber with square doorways built against southern terrace of Mound 21. Parts of the walls and doorways of a similar chamber are upon the terrace above. The steps at the right lead to a ruined Temple, the greater portion of which has fallen into the river. (Page 19.)



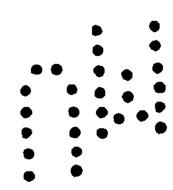


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PLATE V.

FIG. 1. A portion of the Hieroglyphic Stairway with a pedestal at base. Western side of Mound 26. (Page 21.)

FIG. 2. Blocks from two steps of the Hieroglyphic Stairway, showing a broken sculpture representing a reclining human figure in central part of stairway. (Page 22.)

FIG. 1.

FIG. 2.

PLATE VI.

FIG. 1. Looking northeast from northern side of Great Plaza. Stela D and Hieroglyphic Steps at base of stairway on southern side of Mound 2. (Page 24. The Altar of Stela D is represented on page 43.)

FIG. 2. Great Plaza, looking northwest from summit of Mound 26, showing flights of steps upon eastern, northern, and western sides, and the position of Stelæ and Altars. The western arm of the extension north of Mound 10 is in the foreground with Stela 2 at its southern base, and Altar L upon the level area forming its summit. Mound 4, excavated by Maudslay, is at the left of the centre of the illustration, and a short distance in front is the fallen Stela 3. Stela A is hidden by Mound 4, and the fallen Stela 4 lies just beyond the Mound and near the Circular Altar. The broken Stela C and Altar mark the centre of the illustration. Stelæ B, D, F, and H are standing and are designated by the letters near the lower margin of the figure. Fallen Stela E lies upon the terrace above the western range of steps just north of Mound 1. (Page 23.)

FIG. 1.

PLATE VII.

FIG. 1. Stela 6. Front.

FIG. 2. Stela 6. Back.

FIG. 3. Stela 6. Eastern side.

FIG. 4. Stela 6. Western side.

(Page 37.)

FIG. 1.

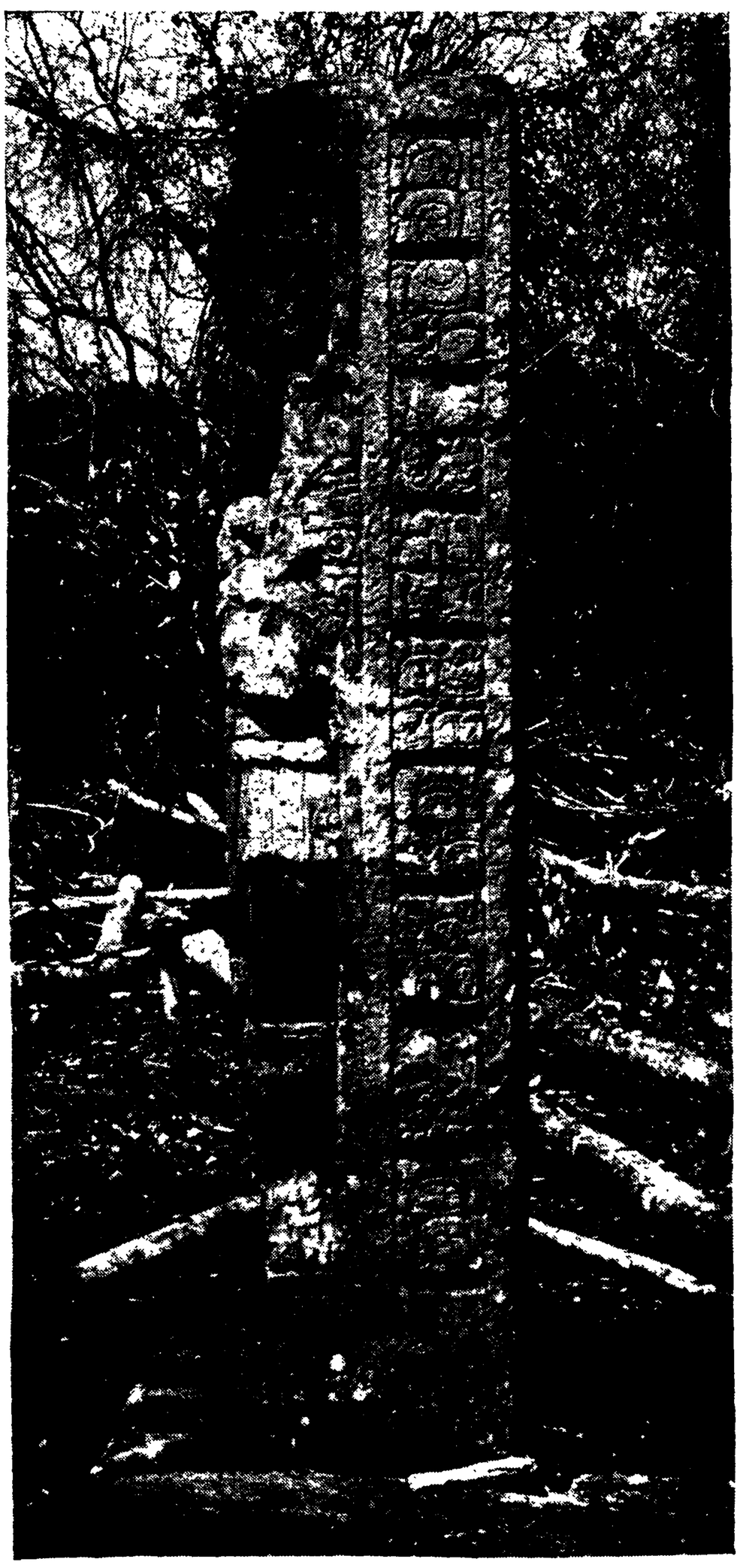

FIG. 2.

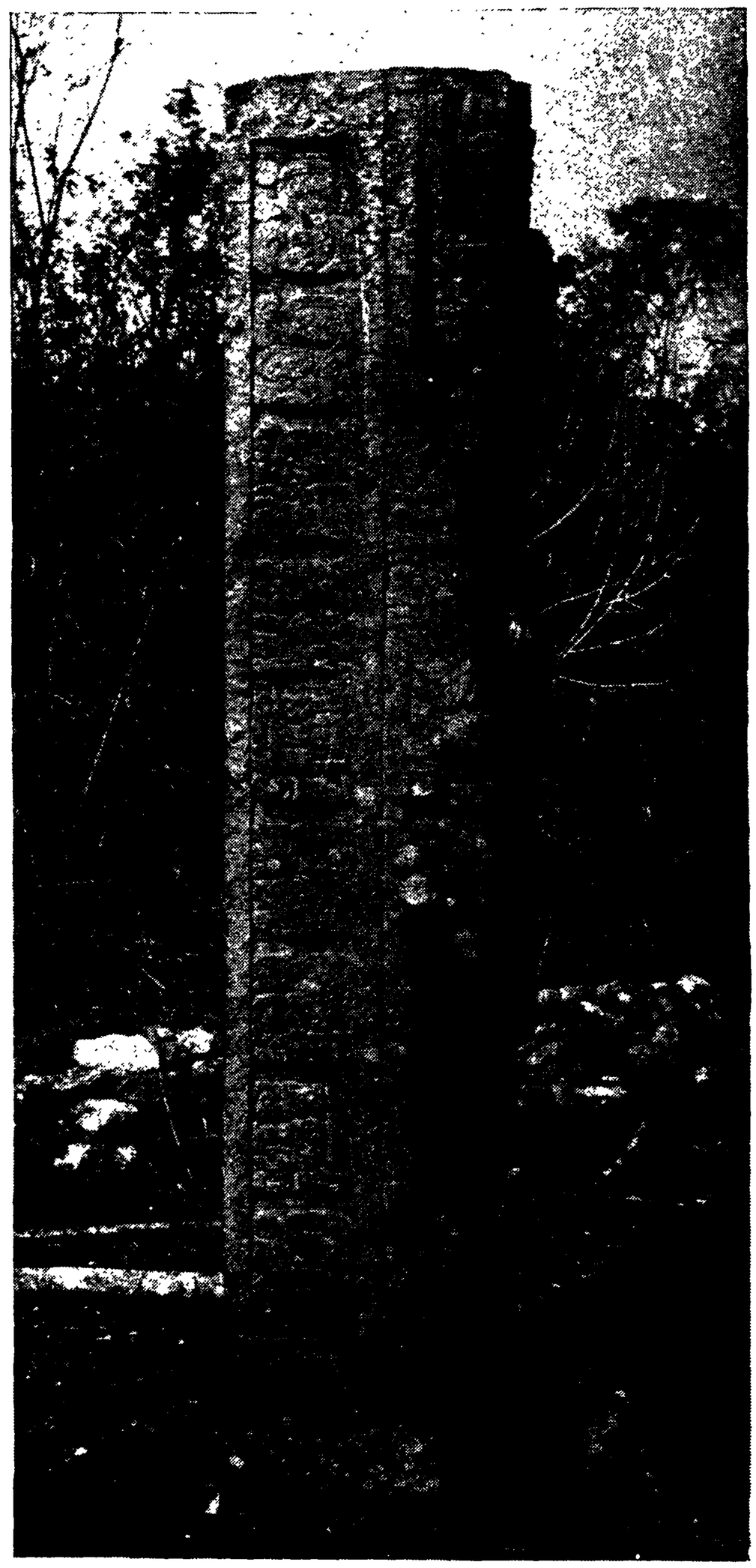

FIG. 3.

FIG. 4.

PLATE VIII.

FIG. 1. Portion of Stela 11 adjoining right side of human figure.

FIG. 2. Portion of the same stela showing human figure.

FIG. 3. Portion of the same stela adjoining left side of human figure.

FIG. 4. Portion of the same stela between parts 1 and 3.

(Page 38.)